April 19, 2006

Dwight Sanders
State lands commission,
100 Howe Avenue
Suite 100 South
Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000. container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely,

Chaka Ra Chaka Ra 12311 chandler Blud. Studio City, CA 91607 To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

Emailed to: BHPRevisedDEIR@slc.ca.gov.

May 12, 2006

Mr. Dwight E. Sanders California State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, CA 95825

**Reference**: State Clearinghouse number: 2004021107

USCG//MARAD Docket Number USCG-2004-16877

"Revised Draft Environmental Impact Report - Application by BHP Billiton

LNG International Inc."

**Subject**: Submission of comments on the DEIR

Dear Mr. Sanders:

My name is Phani Raj, and I am the President and Senior Consultant at Technology & Management Systems, Burlington, MA. I am also a professional who has conducted field experimental research, data analysis, and modeling of the behavior of LNG and assessment of the hazards it poses. I have worked on LNG safety issues for over 30 years and provided professional services on LNG safety issues to U.S. government agencies and the LNG industry. I am a consultant to Distrigas of Massachusetts LLC and for over 30 years I have provided engineering consulting services to this company on a number of projects.

Distrigas of Massachusetts LLC is the most experienced LNG importer and terminal operator in the United States and has operated an LNG import facility for 35 years,. Distrigas is a subsidiary of SUEZ, a global energy, water, and waste management company. Distrigas and its affiliates within SUEZ manage several LNG ships, operate LNG terminals on both sides of the Atlantic Ocean, and design and build new LNG facilities. Our experience is regularly used in the development of new projects and exchanged with other operators to promote best practices within the LNG industry.

Both I (representing TMS) and Frank Katulak (on behalf of Distrigas) have carefully reviewed the DEIR on the above referenced BHP Billiton LNG Deepwater Port (DWP) project and are very concerned about the postulated scenarios and the modeling used to calculate the hazard distances.

Our comments pertain to the following aspects of the subject DEIR

I The selection, description, and modeling of various scenarios of LNG release and hazard assessment indicated in the DEIR, and why several scenarios proposed violate principles of physics, and, therefore, would not occur in reality.

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## 2006/P078

P078-1

P078-1

Thank you for the information.

P078-1 Continued

P078-2

NEPA does not require "worst-case analysis" but does require the agency to prepare a summary of existing relevant and credible scientific evidence and an evaluation of adverse impacts based on generally accepted scientific approaches or research methods.

The Independent Risk Assessment (IRA) (Appendix C1) defines

and evaluates representative worst credible cases (scenarios of events that would lead to the most serious potential impacts on public safety). These included accidents that would affect one, two, or all three tanks of the FSRU.

P078-3

This series of scenarios was developed to address a range of events known to be of concern to the public and to agencies. This scenario allowed the Project team to model and evaluate the effects of a small release. The Hazard Identification Workshop intentionally identified, analyzed, and screened out explosions within the FSRU spaces as low risk contributors. Appendix C of the IRA (Appendix C1) contains additional information on this topic.

II Incorrect modeling and the consequent calculation of erroneous hazard distances.

## Comments on Scenarios<sup>1</sup> (Chosen for Hazard Analysis)

A reading of the IRA analyses indicates that the assessment team developed scenarios to provide some hazard analysis and hazard estimates and distances rather than to consider credible events and examine them critically to see if such scenarios were even possible, physically and scientifically. We submit that a majority of the scenarios postulated are physically impossible and therefore should be revised completely, and more fundamental initiating events should be defined (and assessed as to the physical possibility of their occurrence) before hazard assessments can be performed.

1.1 ACCIDENTAL EXPLOSION IN HULL VOID: The assumptions made in postulating this scenario are not credible. It is assumed that the entire hold space is filled with a stoichiometric mixture of methane vapor and air and some how this vapor-air mixture is ignited in the Floating Storage and Regasification Unit (FSRU), which is designed carefully not to have any ignition sources in the hold. First this scenario does not consider the fact that if LNG somehow leaked from a storage tank, it will vaporize inside the hold space and preferentially displace air (since LNG vapor is heavier than air). Except for the mixing in the vapor-air interface, a stratified gas layer will form which will fill up of the void space. It is hard to imagine in this physical model of mixing (since there is no atmospheric turbulence within the void space to promote mixing) how a uniform, stoichiometric air-vapor mixture would be formed. This scenario is at odds with all of the results from heavy gas experiments<sup>2</sup> and theoretical models. Even in the atmosphere where is there is considerable turbulence, gas stratification has been observed for significant distances<sup>3</sup>. In section 3.1.1 it is stated that "As no venting of pressure is included in the simulation..." If there is no venting and substantial amount of LNG is released, there is no physical mechanism (other than due to very low turbulence and molecular diffusion) by which a stably stratified layer of LNG vapor and air can form a uniform stoichiometric mixture of methane and air within the entire confines of the hold space.

A calculation below illustrates<sup>4</sup> the impossibility of this scenario. Based on the preliminary design of the FSRU it can be shown that a leak of 3,615 gallons of LNG and its complete

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P078-3

P078-2

P078-1

Continued

Section 3.0, Table 3.1, p 3-2, "Independent Risk Assessment of the Proposed Cabrillo Port Liquefield Natural Gas Deepwater Port Project", Appendix C1, Prepared by Risknology, Inc., 1/20/2006.

See results from Thorny Island Experiments

Each spherical tank is (assumed to be) located within bulkheads that are by 75 m distance apart (width of FSRU = 65 m and deck to keel distance or depth of hold = 25 m). It can also be shown from the design that with the center of the spherical tank being 3 m above the deck and the radius of the tank of 28 m, about 42% of the volume of the sphere is inside the hold space. Hence, the air volume of the hold space is 83,210 m<sup>3</sup>. The total

evaporation will be required to form a stoichiometric mixture of the vapor with the air that was in the hold to begin with, assuming that no air leak occurs from the hold. Any leak in excess of this volume of LNG and its evaporation will lead to a richer than stoichiometric mixture of vapor and air. However, even a very small hole at the bottom of the tank will release a volume of LNG far in excess of 3,600 gallons. Is the assumption that there is an ignition source in the hold that will initiate ignition at precisely the moment when 3,600 gallons of LNG have leaked and evaporated and mixed with the right amount of air to form a stoichiometric mixture credible? There is no logic to support the proposed scenario. Any scenario proposed should be credible with statements as to how the scenario can occur taking into consideration the design features of the FSRU, a realistic initiating event, and realistic physics of vapor dispersion/mixing with air and ignition.

The second problem with this scenario is the assumption that all of the vapor-air mixture "participates" in the explosion, if one were to occur. First, the hold space is large enough that it cannot be considered as confined. In fact, the hold length and volume are similar in sizes to the dispersion length and overall volume of LNG vapor clouds that were observed in field tests (in the open) in which the LNG vapor clouds were ignited to see if there would be any explosive burning (none were observed). Also, there are no major obstructions in the hold space that can contribute to the formation of flame wrinkling, which is a necessary condition for flame acceleration and non-detonation based pressure increase. To state that "The flame speed for the combustion is set at Mach 0.29 (global reference frame) based on correlations presented in Baker [14]" (ref: p24, §8.1, Appendix C of Appendix C1 IRA) is insufficient to justify the number used for flame velocity. The flame velocity depends on local geometric obstruction factors, which may or may not exist in the FSRU hold.

We therefore, submit that USCG remove this scenario from the Final EIS/EIR so that scientific credibility in hazard assessment can be maintained. At the very least, the scenario must be explained as to how a vapor air mixture of the proposed concentration and its subsequent ignition can be caused within the hold space and what types of ignition sources there are within the hold, if any.

1.2 ACCIDENTAL EXPLOSION IN MOSS TANK: This scenario appears to be conjecture, having no basis either in FSRU operational procedure (of filling a tank) or any accident history related to filling any LNG tank anywhere in the world. It is inconceivable that a tank would be taken out of service, and somehow LNG is let in, with workmen inside performing tank

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## P078-3 Continued

#### P078-4

P078-3 Continued As discussed in Section 3.1, an accidental explosion in the hull void was identified as credible during the hazard identification workshop. The scenario definition in Section 3.1.1 discusses limitations of this scenario. Section 3.1.3 discusses the reasons why this scenario was not developed any further.

## P078-5

This series of scenarios was developed to address a range of events known to be of concern to the public and to agencies. This scenario allowed the Project team to model and evaluate the effects of a small release. The Hazard Identification Workshop intentionally identified, analyzed, and screened out explosions within the FSRU spaces as low risk contributors. Appendix C of the IRA (Appendix C1) contains additional information on this topic. Based on reviews of historic accidents, incidents related to tank maintenance were identified as a potential hazard. As stated in Section 4.2.1, the analysis did not initially consider frequency. As stated, "The objective of the IRA was to evaluate the consequences of worst credible releases and not to identify a plausible sequence of physical events that would lead to such results."

P078-4

P078-5

mass of air in the hold (between bulkheads) is 99,850 kg. Stoichiometric concentration with this mass of air will require  $5816 \text{ kg} = 13.7 \text{ m}^3 = 3615 \text{ gallons of LNG}$ 

A hole of equivalent diameter of 2 inches at the bottom of the tank will release 3600 gallons of LNG in about 3.5 minutes. Of course, there is the problem of explaining how a 2 inch diameter or some other size hole can occur at the bottom of a heavily insulated tank.

maintenance or repair work<sup>6</sup>! Second, we cannot understand why this scenario is even being considered if the probability of occurrence is so low (the highest probability of any event is  $4.13 \times 10^{-5}$ /year)<sup>7</sup>. In addition, it has no impact on an LNG release from other tanks.

The description of this scenario and the calculation of pressure rise also reflect the same physical impossibility that was discussed in relation to section 3.1 above. Even if LNG is somehow let into the tank (and this scenario is extremely unlikely) – and assuming that it is pumped into the tank at the normal fill rate of 101 m³/min (see below) – it will take only <u>9 seconds worth</u> of flow and its complete evaporation within the tank to form a stoichiometric mixture of LNG vapor with the air inside the tank <sup>9</sup>. Of course, this is based on the assumption that there is no air leak, and instantaneous perfect mixing takes place inside the tank – none of which is physically possible. We do not know of any tank in which maintenance is performed with the "hatch" closed (It would be a violation of "Confined Space" regulations of OSHA). This clearly says that formation of a uniform stoichiometric mixture within the tank is impossible.

The second problem with this scenario is the ignition of (an entirely filled stoichiometric mixture) in the middle of the tank. There are no ignition sources within the tank. Any tools brought into the tank for maintenance may have to conform to the Class 1, Division 1 standards since they have to operate within a space previously occupied by a flammable substance.

If an ignition source exits within the tank during this maintenance scenario (or there is a continuously on ignition source within the tank), as soon as the cold LNG vapor comes into contact with the source, it is likely to extinguish itself. Finally, but not the least, LNG filling is from the bottom and any vapor produced will be stably stratified and fills from the bottom up, displacing the air. At best a very small depth, possibly one or two feet in thickness, may have the vapor air concentration in the flammable range. Even if this ignites, the pressure it will create inside the tank will be far less (at least by an order of magnitude) than what has been calculated by the IRA team.

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P078-5 Continued

P078-6

P078-5

P078-6

Continued

Section 3.2.3 of the IRA concludes that this scenario is improbable and would not contribute to public risk.

In February 1973, an industrial accident unrelated to the presence of LNG occurred at the Texas Eastern Transmission Company peakshaving plant on , in Staten Island, NY. In February 1972, the operators, suspecting a possible leak in the tank, took the facility out of service. Once the LNG tank was emptied, tears were found in the mylar lining. During the repairs, vapors associated with the cleaning process apparently ignited the mylar liner. The resultant fire caused the temperature in the tank to rise, generating enough pressure to dislodge a 6-inch thick concrete roof, which then fell on the workers in the tank killing 40 people. This accident had nothing to do with either the filling of the tank with LNG when the workers were inside the tank nor was there a LNG related fire inside the tank (Ref: M.M Foss, "Introduction to LNG," Report by the Center for Energy Economics, University of Texas, January 2003.)

See § 3.2.3, p 3-9, "Independent Risk Assessment of the Proposed Cabrillo Port Liquefield Natural Gas Deepwater Port Project", Appendix C1, Prepared by Risknology, Inc., 1/20/2006.

See § 2.2.2.3, p 2-21, line 31, Chapter 2., "Description of the Proposed Action," Revised DEIR for Cabrillo Port. March 2006.

Total volume of each Moss tank is about 91950 m³. The initial mass of air in this volume will be 1.1 x 10<sup>5</sup> kg. Mass of LNG needed for forming a stoichiometric mixture with this mass of air (assuming no air leak) is 6.43 x 10<sup>3</sup> kg = 15.12 m³ of LNG. At a fill rate of 101m³/min/tank, this volume of LNG is pumped in within 9 seconds!

ACCIDENTAL EXPLOSION BETWEEN VESSELS: This scenario is also not 1.3 credible. A consideration of the LNG transfer process and the rate of transfer of LNG from the ship to FSRU will show that this scenario is impossible, physically.

First, it is impossible to form a uniform stoichiometric mixture of methane vapor (generated by the boiling of LNG on water) and air in the intermediate space between the LNG ship and the FSRU. This is because the heavier than air LNG vapor will tend to disperse horizontally rather than vertically to the level of the FSRU deck. The FSRU deck is 18 m above sea level Second, whenever there is a gap between two tall objects the wind tends to be collimated between them (one only has to go in the street canyons of Manhattan or any other large city with closely located tall buildings to experience this phenomenon). Hence, any vapor formed will be immediately flushed out by the collimated wind. There is always some wind in the ocean environment. Therefore, the whole premise of forming a uniform, stoichiometric mixture over an 18 m high, 293 m long and 1.5 m wide space in an offshore environment is inconceivable. Also inconceivable is the scenario of ignition of such a vapor-air mixture by a (non existent) ignition source between the two vessels.

The second aspect of this scenario is also a physical impossibility. The LNG pumping rate from the ship is 303 m<sup>3</sup>/min through three loading arms. If it is assumed that the spill occurs in one of the loading arms and all of this release at the full pumping rate falls to the ocean between the vessels and evaporates, it can be shown that it will take only 0.6 seconds worth of flow to form a stoichiometric mixture between the vessels, assuming in the first place that such a formation of the vapor-air mixture is even physically possible. The ship is capable of closing the manifold discharge valves in approximately 30 seconds. So, if a spill is noticed and the pumps are shut off within the rated time, the quantity of LNG spilled will be 50 times greater than that is needed to form a stoichiometric mixture of methane vapor and air at ambient temperature. That is, if no wind flushing is present the inter-vessel space would be filled with too rich a mixture of methane-air. Only a small vertical thickness of the interface between the vapor and air will have a stoichiometric concentration (or even flammable concentrations). On the other hand if the spill is due to a slow leak, say a gasket leak from the loading arm, the visible vapor formation will be noticed by the operator who can initiate an immediate shut down of the transfer pumps and take other appropriate remedial action to prevent a fire.

Volumetric stoichiometric concentration of methane in air is 9.5%. Using this and the volume of space between the vessels being assumed to be 7911 m<sup>3</sup> (= 18 m x 293 m x 1.5 m spacing of vessels) and an ambient temperature of 20 °C, the mass of methane needed for forming a stoichiometric mixture is 500 kg or 1.18 m<sup>3</sup> of LNG. At a pumping rate of 101 m<sup>3</sup>/min (5.05 m<sup>3</sup>/s)/ loading arm, the above volume of LNG is released in 0.6 s. Page 5 of 12





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## P078-6 Continued

P078-7

P078-6 Continued

P078-7

P078-8

This series of scenarios was developed to address a range of events known to be of concern to the public and to agencies and allowed the Project team to model and evaluate the effects of a small release. The plausibility of the scenarios was not evaluated because modeling showed no consequences to the public and therefore, the scenario was not considered further. Appendix C of the IRA (Appendix C1) contains additional information on this topic.

P078-8

Section 3.4 of the IRA contains information on this scenario, which was identified as a potential concern during the hazard identification workshop and defined to permit evaluation of a release during transfer of LNG from the carrier to the FSRU. As discussed, the scenarios were designed to bracket a range of events. This scenario defines a condition in which there could be a two-dimensional confinement (between the side-by-side vessels) of a mixture of LNG that can reach concentrations in the flammable range. However, as discussed, the consequences have been shown to produce almost negligible global response.

Finally, there are no known ignition sources in the space between the two vessels when the LNG ship is moored next to the FSRU. All applicable LNG codes and regulations require strict procedures to be followed, including suppression of all ignition sources in any area where liquid transfer takes place. Therefore, it is inconceivable as to how the vapor cloud, if formed at all between the vessels, would be ignited.

We, therefore, submit that USCG delete any reference to this scenario in the Final EIS/EIR.

**1.4 INTENTIONAL MULTIPLE TANK BREACH**: This scenario described in the DEIR is a physical impossibility, particularly the part that purports the dispersion of flammable vapor up to 11.7 km distance and THEN gets ignited, somehow, on the open ocean. We believe that the quote in the Table below forms the basis of this scenario as indicated in the DEIS (Ref Table 4.2.2, page 4.2-7, § 4.2 "PUBLIC SAFETY: HAZARDS AND RISK ANALYSIS").

The maximum distance to vapor dispersion, 11.7 km (and associated late ignition flash fire) scenario is based on the description of an event that is considered "credible." However, this scenario is NOT physically possible to achieve. An examination of the assumptions and the proposed events indicates that this scenario cannot occur, and the calculated results are incorrect. This scenario would defy physics.

Shoulder or aircraft-fired missile or other tactical weapons The double hulls of the FSRU and LNG carriers would be robust. Penetration of one tank could result in consequences similar to the marine collision (one-tank) release scenario. The two-tank, 7 squaremeter (m²) scenario is based on one missile and then a second missile successfully penetrating LNG tanks on the FSRU or LNG carrier. Sandia recommended this scenario based on emerging guidance from the U.S. Department of Homeland Security (DHS) and from the intelligence community as noted in the Sandia report and the associated classified report on possible intentional threats ("Threat and Breach Analysis of an LNG Ship Spill Over Water" Sandia National Laboratories, May 2005 [SECRET]). Worst credible case is addressed in the intentional (two-tank)

In the following paragraphs the facts related to the proposed site and LNG storage in FSRU are restated and arguments provided to support the above statements and conclusions.

The maximum distance of hazard indicated in Table 4.2-1 (of the DEIR) is 11.7 km and is assumed to occur as a result of an intentional act with two independent missiles causing two spherical tanks be punctured (each with a hole of 7 m<sup>2</sup> in area). The LNG released is assumed NOT to IGNITE immediately but disperse approximately 11.6 km then get ignited resulting in a vapor fire flashing back all the way to the source!

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P078-9

Section 3.4.4 of the IRA (Appendix C1) acknowledges that no ignition source may be present.

P078-9

P078-10

Section 3.5.1 contains information on the intentional multiple tank breach, which investigates the consequences of the failure of sections of two tanks due to an intentional attack. Sandia recommended this scenario based on information contained in a classified report and conservative assumptions were used to avoid underestimating the consequences of an accident.

P078-10

The Independent Risk Assessment (IRA) (Appendix C1) defines and evaluates representative worst credible cases (scenarios of events that would lead to the most serious potential impacts on public safety). These included accidents that would affect one, two, or all three tanks of the FSRU.

As shown in Tables 4.2-1, 4.2-2, 4.2-7, and 4.2-8, the release of the contents of all three tanks (the entire contents of the FSRU and an attending LNG carrier) is addressed in the escalation scenario associated with a large intentional event. Section 4.2.7.6 contains additional information on how intentional events are addressed. Although the 2006 U.S. Department of Energy's Sandia National Laboratories third-party technical review of the 2004 IRA found that the three-tank simultaneous release (a massive LNG release in a short time period) was not credible, Sandia recommended the consideration of a cascading (escalation) three-tank scenario.

The text in Section 4.2.7.6 under "2006 Independent Risk Assessment" has been revised to clarify that this scenario may overestimate the hazard.

P078-10 Continued

- LNG is proposed to be stored in the Cabrillo DWP in specially designed FSRU. The preliminary design and dimensions of the FSRU are: 3 spherical tanks each of 56 m in diameter and 90,800 m<sup>3</sup> volume capacity, 971 feet (296 m) long, 213 feet (65 m) wide, and 161 feet (49 m) tall from the waterline to the top of the tanks. The top of each tank is 31 m above the deck (deck, 18 m above water line). That is, the horizontal plane containing the center of the tank is 3 m above the deck level and the bottom of the tank is 7 m below the water line.
- 3 The scenario of LNG release from the two tanks assumes that two independent missiles strike each of two tanks releasing all their contents (instead of assuming 2 x 90,800 = 181,600 m³ release the IRA calculations assume 200,000 m³ spill 10% more than the maximum contents of the tank, even if one includes the LNG present in the tank below the water line!) and the release results in an unignited LNG pool on water; the resulting vapor is assumed to be dispersed by the prevailing wind without ignition. Ignition is assumed to occur at the down wind end of the vapor plume (where the vapor concentration is 5%).
- 4 It is not possible for us to reconcile how air launched missiles will hit the bottom of the tanks when a significant part of the tank structure is below the deck of the FSRU and below the water line also. If the postulated scenario of LNG release from the bottom of the tank is to occur (see item 5 below), the missiles flying in the air somehow have to dive into the water, become torpedoes and then impact the bottom of the tank, a virtual impossibility. In the case of an air-launched missile, the propulsion would be quenched when it enters the water.
- If somehow, the missile launch scenario were to occur, the resulting consequence cannot be as described in the DEIR. First, for the full content of each LNG tank to be released (assuming each tank to be full at the time of the missile attack) the hole (assumed to be 7 m<sup>2</sup> in area or 3 m in diameter) must be at the very bottom of the tank. Please note from item 2 that the bottom of the tank is 7 m below the water line and about 32 m from the outside hull plate. If this puncture, as proposed, happens, a substantial volume of LNG surely will be released directly into the water (and not on water). The tests conducted by the Bureau of Mines in 1969 under the USCG sponsorship indicated that when LNG is released under water the evaporation rate per unit horizontal sea surface area is substantially higher (almost by an order of magnitude) than is the case with a LNG pool evaporation on water. This is because of the increased surface area for heat transfer between the LNG (now fragmented into smaller drops) and seawater. This in effect will increase the vapor emanation rate initially and correspondingly reduce the ultimate pool diameter substantially. The IRA contractor has not only left out this phenomenon in the calculations, but such a phenomenon has not even been mentioned in the report. Using "sophisticated CFD tools" is not useful if one is not addressing realistic physical situations and the corresponding physics in a scenario. No computer calculations, including CFD code based, can provide proper descriptions when the postulated scenario and the physical assumptions on which they are based are faulty.

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P078-10 Continued The assumption of no immediate ignition of the vapor cloud as it is being released by the first tank puncture is incorrect. No two missiles (of the size that can create a 3 m diameter hole in the inner tank after penetrating an outer hull of 1 inch thick steel plate) can be fired simultaneously. That is, there will be a finite time, even if it is in the order of seconds, between the arrival of the first and the arrival of the second missile. Even if the first missile does not ignite the vapor cloud (this premise is itself in great doubt), the second missile with a large jet flame behind it will surely ignite the vapor cloud. After all, when the second missile arrives, it has to go through an already formed LNG vapor cloud, the edges of which will have flammable range vapor concentrations. A jet flame on the tail of a large missile will surely ignite the vapor cloud. Therefore, the premise in the calculation of a very large vapor cloud dispersion distance is INCORRECT because early ignition of the vapor cloud very close to the FSRU is a certainty in the scenario proposed.

In this DEIR, the largest distance to hazard is based on the assumption of vapor cloud dispersion formed by the release of two tanks full of LNG, more or less simultaneously. This conclusion that some hazard is posed at a distance of 11.7 km is based on incorrect physics and unsupportable assumptions as to the formation of the vapor cloud in the first place.

We therefore submit that the USCG remove the above scenario from the final EIS/EIR or else require the contractor take into account the real physics implied by the scenario.

## II Comments on Models and Model Parameters Used in the IRA

The accuracy of a calculation is only as good as the weakest link in the chain of calculations. It is evident from the materials presented in the IRA document <sup>11</sup> that the approach is faulty and completely unbalanced as far as the results are concerned. In all of the analyses presented in this report, the source descriptions are incorrect and unsubstantiated. Using a CFD code in such situations does not result in proper estimates of the real hazard areas.

Below are our comments on the various modeling parameters and the type of models used in the IRA.

## Source Modeling<sup>12</sup>

2.1 <u>Tank Releases and Spills</u> (page 8): A CFD code is not needed to evaluate an "instantaneous release." By definition, the entire volume assumed to be spilled will be released

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## 2006/P078

### P078-11

The Sandia document specified the assumption of no immediate ignition. Nevertheless, the text in Section 4.2.7.6 under "2006 Independent Risk Assessment" has been revised to indicate that it is very likely that ignition would occur.

P078-11

#### P078-12

The lead agencies directed preparation of the Independent Risk Assessment (IRA), and the U.S. Department of Energy's Sandia National Laboratories independently reviewed it, as discussed in Section 4.2 and Appendix C.

Section 4.2.7.6 and the IRA (Appendix C1) discuss the models and assumptions used and the verification process. Sandia National Laboratories (Appendix C2) concluded that the models used were appropriate and produced valid results.

#### P078-13

The entire volume was assumed to be released to avoid underestimating the potential consequences. Section 4.2.7.6 has been revised to clarify that the entire contents of the tanks may not be released.

P078-12

P078-13

<sup>&</sup>quot;Independent Risk Assessment of the Proposed Cabrillo Port Liquefield Natural Gas Deepwater Port Project", Appendix C1, Prepared by Risknology, Inc., 1/20/2006.

Henceforth all references to page numbers or section numbers will be to "Consequence Modeling – Appendix C," to the "Independent Risk Assessment of the Proposed Cabrillo Port Liquefield Natural Gas Deepwater Port Project", Appendix C1, Prepared by Risknology, Inc., 1/20/2006

P078-13 Continued

P078-14

Appendix D to the IRA contains information on the finite element model used to determine hole sizes used for releases due to accidental ship collision with the FSRU.

2006/P078

P078-15

The Raj equation was not used to generate any calculated result in C1), "the spill calculations had good agreement with results generated by Sandia National Laboratories."

the IRA. As stated in Chapter 4 of Appendix 3 of the IRA (Appendix

in a very short time. In Appendix C1 (on model details) to DEIR there is no mention of the height (above the sea) from which the release has been assumed to occur and has been modeled. Any liquid released from a reasonable height (of even a couple of meters) on to another liquid will result in the released liquid penetrating the surface and submerging inside of the receiving liquid. It is very important to model, especially when using a CFD, the penetration of the liquid (LNG) mass into the seawater and the dynamic and thermal effects of such penetration on the vaporization of the LNG. Assuming that the liquid spilled (especially from a height of about 18m or higher) will gently spread on water and evaporate (with mass evaporation rate of 0.135 kg/m<sup>2</sup> - see page 9) is incorrect. The entire source modeling needs to be re-evaluated and modeling should be used consistent with the physics of release.

There are too many unknowns to use a CFD to calculate the flow rate from a hole created by a ramming accident. First, the hole size itself is somewhat uncertain. For example, when a colliding ship is mated with the collided ship, the "cracked" hole configuration and size are unknown. Second, one does not know the effect of bent steel in splashing the liquid into the hold space of the FSRU. Third, the location of the hole relative to the water line is a very important aspect, which does not seem to have been considered at all. Last but not the least, when a large amount of LNG is spilled, as postulated, a substantial volume of it ends up deep inside the water column, gets heated to superheat temperatures and evaporates very vigorously over the entire immersed volume (rather than on the surface as has been considered in the modeling) leading to larger vaporization rate but smaller horizontal footprint for the pool.

<u>SPILLING</u> (page 9): The IRA report claims that the pool spread model using the FDS was validated using another theoretical model [" ... To verify that the calculations were reasonable, comparisons of FDS results for non-escalation events were made with several analytical methods such as that based on the work of Raj [8] ']. Dr. Raj is honored that his work is cited. However, the way the Raj model results have been used to "test" the accuracy of a CFD model is incorrect; one theoretical model cannot form the basis of correctness of another theoretical (even computerized) assessment. The Raj model, which is purely theoretical and assumes a "delta function" instantaneous release (that is at zero time the liquid height is infinity), is not valid for calculating pool spread for LNG release from a tank located significant height above the water level. The Raj model does not take into account the details of LNG fragmentation and the consequent high evaporation rate. The Bureau of Mines tests of 1969 indicated that the pool sizes were very small and less than ½ the anticipated size when LNG penetrated into the water. In addition, in the tests in which the liquid was ignited during the spill less than half of the vapor generated is reported have burned. It seems that the calculation performed was a 2D pool spreading calculation simulating a 3-D event. The results generated for the pool size and the evaporation rate will be incorrect. It is recommended that the evaporation rate and the pool spreading be recalculated considering all of the above discussed phenomena.

Page 9 of 12

P078-15

P078-13

P078-14

Continued

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18 Rover Street EVERETT MA 02149 Tel 617-381-8512; Email: fkatulak@suezenergyna.com

- a) The fire is modeled as an expanding circular cylinder with a mean surface emissive power of 220 kW/m². While this may be an acceptable number for small fires (about 20 m in diameter) it is not correct for large diameter fires <sup>13</sup> of the dimensions considered in the model (600 m to 800 m).
- b) The model assumes that the fire height is given by Moorhouse correlation. This correlation has been shown to be inapplicable to large fires (same reference as in foot note 7).
- c) The model does not account for the significant reduction in the overall surface emissive power with fire size due to the effects of black smoke shrouding the radiant output. This has the largest significance on the hazard distance.
- d) The model uses the final spread diameter to calculate the hazard distance to various levels of heat flux. It should be noted that the application of these flux criteria (that are deemed applicable to long term uniform diameter fires) are not appropriate for a spreading and expanding fire. Presenting the distance calculated to 5 kW/m² heat flux level using the largest diameter of the pool fire (at which diameter the fire lasts for essentially zero time) is a misrepresentation of the hazard. The 5 kW/m² criterion for human skin hazard is based on a 30 seconds exposure. The calculations should be redone to determine the range of fire diameters in the last 30 seconds of the fire and then only calculate the "equivalent distance to" the 5 kW/m² heat flux.
- e) The pool fire model uses a constant value of 0.8 for the transmissivity of the atmosphere. Atmospheric humidity absorbs a considerable fraction of the emitted radiant heat (after all one of the principal components of methane burning is water vapor which emits radiation in several bands). As an example, it has been found in the largest LNG pool fire experiments (35 m diameter) performed in 55% relative humidity conditions that, over a distance of 155 m, about 35 % (i.e., transmissivity of 0.65) of the emitted fire radiation was absorbed in the atmosphere! In considering the atmospheric transmissivity over an ocean-air environment 95 to 100% relative humidity should be used. Atmospheric absorption must be properly modeled with these relative humidities. Atmospheric absorption has a significant effect on the calculated hazard distance.

In short, we submit the IRA analysis has calculated erroneously large distances (such as 3240 m) for thermal hazard distance from pool fires as a result of (i) not taking into account experimental data from large LNG fires, and (ii) not accounting for variations in size (fire height and diameter) and the fire average emissive power with time as well as (iii) using an incorrect atmospheric transmissivity value. The parameters discussed above should be carefully considered,

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## 2006/P078

## P078-16

The Right Circular Cylinder method is described in the Society of Fire Protection Engineers Handbook of Fire Protection Engineering. As described, in Section 5 of Appendix C of the IRA (see Appendix C1), this model was used based on a recommendation from Sandia National Laboratories because CFD models have not been fully benchmarked against large pool sizes.

## P078-17

This coefficient was used based on a recommendation from Sandia National Laboratories (see "Fire Modeling Evaluation" in Chapter 5 of Appendix C2).

## P078-18 P078-18

P078-16

P078-17

The surface emissivity used was as recommended in the Sandia Guidance document (see Appendix C2).

## P078-19 P078-19

The IRA authors do not consider it appropriate to use the average of the last 30 seconds. Section 5 of Appendix C to the IRA contains information on the selection of thermal flux and atmospheric transmissivity.

## P078-20

Conservative values were used to avoid underestimating the consequences.

#### P078-21

As discussed in Appendix C2, Sandia reviewed and assessed the IRA pool fire calculations and concluded, "The assumptions made are reasonable given the current knowledge of the required input parameters and should provide a conservative estimate of thermal hazard distance."

P078-21

P078-20

<sup>13</sup> See the paper by Raj, P.K., ""Large LNG Fire Thermal Radiation – Modeling Issues and hazard Criteria Revisited," Process Safety Progress, v 24, n3, Sept 2005.

## P078-21 Continued

## $\underline{\text{models should be corrected,}} \underline{\text{and revised hazard estimates should be developed for the pool} \underline{\text{fire scenarios}}.$

#### 2.4 *VAPOR CLOUD FIRE* (page 16):

There is a serious problem with the analysis presented in the IRA (Appendix C of Appendix C1 to the DEIS) for calculating the thermal hazard zone from a vapor cloud fire. Not enough information has been provided in the report to clearly point out the mistake; but we are convinced that the analysis is incorrect merely from the examination of the results presented for the burning zone width (Figure 9 on page 17 of the referenced Appendix), extending to hundreds of meters. Dr. Raj is the principal collaborator and author of the vapor fire model <sup>14</sup> quoted in the SFPE Handbook of Fire Protection Engineering and referenced in the IRA report. It is his considered opinion that the contractor has used the model incorrectly.

The model used by the IRA contractor has the following errors, which together overestimate the burning zone width and, therefore, the flame height and the consequent estimation of the hazard distance.

- a) Assuming the cloud height over the entire down-wind length of the cloud to be uniform with cloud height equal to the height at maximum cloud width and using this assumption to calculate the vapor fire hazard. This will make the mass of vapor in the cloud (for vapor fire calculations) much greater than the mass of vapor that is actually inside the cloud. (Ref to Figure 11 of the Appendix C of Appendix C1).
- b) Not defining what is meant by the height of the cloud. Is the height of the cloud the calculated height above the sea to a 5% concentration contour? Is the same definition true for the "width" of the cloud?
- c) Using this height of the cloud (of 30 m) as the characteristic depth of the cloud for the vapor fire calculation. This is not correct. The cloud depth that should be used in the calculation is the equivalent depth of a height-wise uniform concentration cloud, whose concentration is equal to the concentration at the ground (or sea) level. It seems by not considering this aspect that the contractor has used the model in a completely wrong way. Further, it is noted that the ratio of the height of the flame to the burning zone width (in the wind direction) is a function of the concentration of vapor in the cloud. A vapor concentration of 5% (i.e., 95% air) is more dilute than the stoichiometric concentration (9.5%) at which the flame is considered to be premixed. Only those clouds with mean concentration greater than 9.5% vapor will exhibit a fire plume.

Page 11 of 12





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#### P078-22

P078-21 Continued P078-22 Appendix C of the IRA (see Appendix C1) under Section 7, "Vapor Cloud Fire," contains detailed information on how the vapor cloud fire was modeled. As discussed in the Sandia Review of the IRA (Appendix C2), "[t]he model used and the assumptions made should provide a conservative estimate of the thermal hazard distances. The results are also conservative because of the transient nature and spatial variability of vapor cloud fires. Heat flux levels will not be maintained for durations required to cause injury at certain locations relative to the cloud. Thus, a global hazard zone...should be conservative."

## P078-23

In the Sandia Review of the IRA (see Appendix C2), under "Fire Modeling Evaluation," contains information on Sandia's review and assessment of the flash fire modeling. Conservative assumptions were used throughout the analysis.

## P078-24

As described in Section 7 under "Vapor Cloud Fire" in Appendix C of the IRA, Figures 11, 12, and 13 show the details of the clouds analyzed. As indicated, "[t]he figures demonstrate that the height of the cloud varies substantially across the cloud footprint with the maximum height is found along the centerline of the cloud."

## P078-25

As further described in Appendix C of the IRA, "[f]or simplicity this cloud height was assumed to be constant across the footprint of the cloud and the value used for the radiation calculation was taken to be the centerline value. For the vapor cloud at 60 minutes after release, the centerline cloud height was approximately 30 m."

P078-24

P078-25

P078-23

Raj, P.K. and H.W. Emmons. "On the Burning of a Large Flammable Vapor Cloud," Paper presented at the joint technical meeting of the Western and Central States Section of the Combustion Institute, San Antonio, Texas, April 21 and 22, 1975.

The vapor fire model that Emmons and Dr. Raj developed IS NOT APPLICABLE (please see the original paper regarding the physics) for low concentration cloud burning (or for premixed vapor conditions). Yet the contractor has used this to calculate enormous burning widths and incorrect flame heights  $(0.4 \times 900 = 360 \text{ m high!})$  where there should be no plume fire. Because of the incorrect use of the vapor fire model the hazard distance estimates may be over estimated by a factor of 10 or more (the distances indicated are in the thousand meter range, whereas, the hazard distance can be expected to be in the tens of meters or at best 100 mg.)

d) Using a value of 0.16 m/s as the upward velocity of gases in the combustion zone. This is not an independent value that is input into the model but a value that results from the burning and the suction it creates ad is automatically calculated in the model. We do not know how the contractor can make the following statement; "The other parameter is the upward velocity at the flame base, which was taken to be 0.16 m/s based on data for LNG"<sup>15</sup>. What LNG data does this refer to? We are unaware of any experimental measurements of the updraft velocity of gases in a vapor fire burning in the open.

<u>In view of the above incorrect use of the model and the erroneous results there from, we submit that this analysis and its results should not be published in the final EIS/EIR.</u>

\*\*\*\*

We appreciate the opportunity to provide our comments on this Independent Risk Analysis. Please do not hesitate to contact us with any questions.

Yours truly,
Pari Par

Phani K. Raj, Ph.D.

President & Senior Consultant

Technology & Management Systems, Inc.

Francis J. Katulak
President and COO

President and COO Distrigas of Massachusetts LLC

Page 17, §7, "Vapor Cloud Fire," – Appendix C to the "Independent Risk Assessment of the Proposed Cabrillo Port Liquefield Natural Gas Deepwater Port Project", Appendix C1, Prepared by Risknology, Inc., 1/20/2006 Page 12 of 12





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#### P078-26

As discussed above and in the Sandia Review of the IRA (Appendix C2), "Heat flux levels will not be maintained for durations required to cause injury at certain locations relative to the cloud. Thus, a global hazard zone...should be conservative."

P078-27

P078-26

P078-27

P078-28

The LNG data are the data from the Coyote experiments on vapor cloud fires as recommended by Sandia. As discussed in the Sandia Review of the IRA, "Sandia reviewed and assessed the flash fire results by calculating heat flux as a function of distance shown in Figure 5. The same input parameters were used as ACE except a surface emissive power of 220 kW/m<sup>2</sup> and an upward velocity of 0.2 m/s were used. This upward velocity will give a flame height to cloud height ratio of 10 which is what was found from the Coyote experiments on vapor cloud fires<sub>15</sub>. This approach results in a maximum flame width of 750 m. The results are in close agreement with the results by ACE. The model used and the assumptions made should provide a conservative estimate of the thermal hazard distances. The results are also conservative because of the transient nature and spatial variability of vapor cloud fires. Heat flux levels will not be maintained for durations required to cause injury at certain locations relative to the cloud. Thus, a global hazard zone as provided by ACE should be conservative."

## P078-28

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P393

2006/P393

April 19, 2006

Dwight Sanders State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000. container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely

Enrique Rominez Sugar Raming 7/37 Shoup Ave.#25 West Hills, OA 9/307 To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

## Comment Form/Formulario Para Comentarios

Cabrillo Port LNG Deepwater Port—Revised Draft EIR
Puerto de Aguas Profundas de LNG en el Puerto de Cabrillo—Borrador Revisado del EIR

To receive a copy of the Final EIS/EIR, you must provide your name and address. Para recibir una copia del EIS/EIR Final, por favor proporcionar su nombre y dirección.

Name (Nombre):	45(174= 2		
Organization/Agency (Organizatión/Agencia):	NITED FARM WORKERS		
Street Address (Calle): 920 6	A STREET		
City (Ciudad): OXHARO			
	(Código Postal): <u> </u>		
email address (dirección de correo electrónico):			
lilbrown	buffalo @ yahoo.com		
Please provide written comments on the reverse and drop this form into the comment box.  Proporcione por favor los comentarios escrito en el revés y colóque esta forma en la caja del comentario.			
en la caja de	l comentario.		
en la caja de You may also address any written comments	I comentario.  Usted puede dirigir también cualquier		

# All comments must be received by 5 p.m. Pacific Time, May 12, 2006

# Todos los comentarios debe ser recibido por 5 de la tarde, hora Pacífico, el 12 de mayo de 2006

Comments/Comentarios (Use additional sheets if necessary/Puede utilizar hojas adicionales si es necesario):

 THE ENVIRONMENT AND THE INDIVIOUALS
WHO ARE CONCERNERHED ABOUT THEIR
1
 WELL-BEING; AND THEIR SURROUNDING
COMMUNITY. "GI SE PUEDE!"
Int IP)
JOSE M. RAMIREZ

2006/V236

V236-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

From: Carmen Ramirez [mailto:Carmen.Ramirez@ventura.courts.ca.gov]

Sent: Friday, May 12, 2006 1:22 PM To: BHPRevisedDEIR@slc.ca.gov

Subject: BHPBilliton Cabrillo Port Liquefied Natural Gas Deepwater Port

Dear Mr. Sanders.

I am writing to you to express my deep concern and unease about this project for the following reasons:

- 1. The Draft EIR indicates that there are several unremediable/unmitigatable impacts on our environment which will be detrimental to the health and safety of our community and our ocean environment and the life and water in the ocean. This includes the certain discharge of pollutants into the atmosphere of approximately 280 tons of contaminants per year which will certainly cause more asthma and other respiratory problems, and will particularly affect the young as well as others with compromised health. This cannot be remediated and it is an unacceptable impact; 2. The previous unremdiable impact will fall upon a predominately minority population of the Oxnard area, which is mostly Hispanic, Spanish-speaking and low income; this represents an environmental justice issue and should not be allowed; 3. The Project itself will have deleterious effects on our fishing industry, water quality, marine mammals and their migration, and recreational use of the ocean and the coast.
- 4. The project will be subjected to possible accidents, both delib- erate and accidental, which cannot be completely safeguarded against; the proposed project is close to vital national security sites, such as Port Hueneme Naval Construction Battalion Base and the Point Mugu Naval Air Station; any accident will compromise our national security; this is unacceptable.
- 5. This is an experimental project, never tried before and the impact of an earthquake/tsunami event predicted for our area will have disastrous consequences for human and animal life as well as the viability of our ocean environment.

For all of the reasons below, I ask that your agency deny the Permit to the BHP Billiton Cabrillo Port project.

Additionally, and most emphatically, please consider requiring EVIDENTIARY hearings before any such project is considered anywhere. California's unique and precious coastal resources must be protected and there is a

california's unique and precious coastal resources must be protected and there is complete lack of actual evidence to support the need for this LNG facility or anyother.

It is incumbent upon our state agencies to be safe rather than sorry and not to permit this Project to go forward under all of these circumstances.

Thank you for your attention to these comments.

Should you have any questions, you may contact me at M. Carmen Ramirez 528 Holly Ave Oxnard, CA 93036 (805) 483-1464 ramirezmc@verizon.net

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Sections 4.2 and 4.7 discuss impacts to public health and marine biology.

#### P084-2

The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures. Included also is a discussion of the impacts of Project emissions on human health.

P084-2

P084-1

P084-3

Section 4.19 evaluates potential environmental justice impacts.

P084-3

P084-4

P084-4 Sections 4.16.4, 4.18.4, 4.7.4, and 4.15.4 discuss impacts to these resources.

P084-5

P084-5

Table 4.2-2 identifies representative hazards and threats considered in the public safety analysis.

P084-6

Section 4.3.4 contains information on potential impacts associated with the increased vessel traffic due to the proposed Project. The FSRU would be located 3.5 NM (3.54 miles) from the eastern boundary of the Point Mugu Sea Range (Pacific Missile Range). Impacts MT-5 and MT-6 in Section 4.3.4 address potential Project impacts on Naval and Point Mugu Sea Range operations.

P084-8

P084-7

P084-6

P084-9

Sections 2.1 and 4.2.7.3 contain information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU and LNG carriers. Sections 4.11.1 and 4.11.4 discuss the risks of earthqukes and tsunamis.

#### P084-7

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

#### P084-8

Section 1.1 discusses regulations and agencies involved in the licensing and potential approval of the proposed Project. The USCG and MARAD will hold a final public hearing on the license with a 45-day comment period before the Federal Record of



## 2006/P084

Decision is issued. The CSLC also will hold a hearing to certify the EIR and make the decision whether to grant a lease. Section 1.5 contains additional information regarding public notification and opportunities for public comment.

## P084-9

Section 1.2.2 contains updated information on natural gas needs in the U.S. Forecast information has been obtained from the U.S. Department of Energy's Energy Information Agency. April 19, 2006

Dwight Sanders
State lands commission,
100 Howe Avenue
Suite 100 South
Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack,
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000, container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely

Rasher

24736 W. Saddlepoal Rd

Malike (Ag=265

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

From: Tina Rasnow [Tina.Rasnow@ventura.courts.ca.gov]

Sent: Tuesday, April 18, 2006 10:22 PM

To: BHPRevisedDEIR@slc.ca.gov

Cc: Carmen Ramirez

Subject: floating regassification port for Liquefied Natural Gas

Dear Sir or Madam,

I am writing to express my concern about the proposal to construct a floating regassification port for Liquefied Natural Gas off the coast in Ventura County. Renewable energy resources should be developed including solar and wind power, that do not harm the environment or pose a threat to public health. Drilling for natural gas harms the environment where it is extracted, and everywhere it travels, placing the public and the environment at considerable risk. With all the current focus on protection from terrorism, it makes no sense to create new hazards that make us more vulnerable to terrorist attack. While attacking solar power panels or windmills may disrupt electricity, they do not cause toxic releases into the environment as we would have from an attack, or even an unintended accident, with a natural gas facility or nuclear power plant. It makes no sense for our present day citizens to be exposed to these hazards, nor for future generations, by increasing the danger of accident or attack by building installations that make us more vulnerable.

Please prevent the construction of a floating regassification port for Liquefied Natural Gas, and instead encourage the development of renewable and safe energy alternatives such as wind and solar power.

Thank you for your consideration.

Sincerely,

Tina Rasnow

## V014-1

Sections 1.2.2, 1.2.3, 1.2.4, 3.3.1, 3.3.2, and 4.10.1.3 contain information on the need for natural gas, the role and status of energy conservation and renewable energy sources, and the California Energy Action Plan.

Sections 3.3.1 and 3.3.2 address conservation and renewable energy sources, within the context of the California Energy Commission's 2005 Integrated Energy Report and other State and Federal energy reports, as alternatives to replace additional supplies of natural gas.

V014-1

V014-2 V014-3

### V014-2

Section 1.3 contains information on environmental effects abroad.

Section 1.3 has been revised to include information on Indonesian and Malaysian environmental requirements that would regulate impacts related to producing and exporting natural gas. All three countries have existing LNG liquefaction facilities.

V014-4

## V014-3

Section 4.2.8 addresses safety issues related to natural gas pipelines. Section 4.2.8.4 contains information on the estimated risk of Project pipeline incidents. Table 4.2-2 and Sections 4.2.6.1 and 4.2.7.6 contain information on the threat of terrorist attacks.

#### V014-4

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

2006/P005

From: Lee2 [lee2.reams@taxsmartinc.com]
Sent: Thursday, April 13, 2006 7:25 PM
To: BHPRevisedDEIR@slc.ca.gov
Subject: Malibu LNG Project

I have recently reviewed the proposed LNG facility off the coast of Malibu. I am strongly opposed to the project for the following reasons:

1\_ Proximity to coast – downwind from my home – I live on Point Dume which is directly downwind from the facility. The structure is full of diesel fuel and potentially explosive gases. There is an opportunity for a natural disaster at each docking, which is proposed at 2-3 times a week, or up to 156 per year. The emissions of the facility will negatively affect the air quality on the coast line.

- 2\_ Coastal Protection / Views I can't believe this proposal is even at this stage. It takes 2-3 years to get a building permit in Malibu. Issues such as coastal views and environmental protection are cited as the reasons for this difficult process. How does this facility make our coastline more beautiful? It is directly off the heavily trafficked Zuma beach where millions will view this immense anchored facility everyday. The applicant states that the dimensions are an overall length (from 938 feet or 286 meters [m] to 971 feet or 296 m).
- 3\_ Safety I read the following comment and became very concerned about my families health. "To assist in leak detection by smell, the Applicant would inject an odorant into the natural gas stream at the FSRU. Southern California Gas Company (SoCalGas) would operate a backup odorant injection system onshore." I am no expert, but with 156 visits per year and potential terrorist activity, I sure don't feel safe.

I believe this location was chosen because of the small population of Malibuites. It is the classic not in my backyard argument. I will join whatever forces necessary to stop this project in its tracks. Why can't it be located in an industrial area that is already home to energy sources. They couldn't have picked a worse spot. I really don't think we need another Santa Barbara island off our coast. Especially with the danger of destroying our fragile coastline.

Lee Reams II
6980 Dume Drive
Malibu, CA 90265
lee2.reams@clientwhys.com
1.818.338.8700 x222
www.clientwhys.com
www.clientwhyscpe.com
www.ipersyst.com

P005-1

P005-2

P005-3

safety.

P005-1

Project.

P005-2

Section 4.4 and Appendix F contain information on visual resources, impacts, and mitigation. Appendix F describes how visibility from various distances was evaluated and provides additional simulations prepared for viewpoints at elevated sites along the Malibu coastline and inland areas. Figure 2.2-1 provides a profile schematic and dimensions of the proposed FSRU.

Your statement is included in the public record and will be taken

into account by decision-makers when they consider the proposed

Sections 4.6.1 and 4.6.4 discusses the Project's potential effects to

air quality on-shore. Section 4.2 and Appendix C discuss public

P005-4

Table 4.2-2 and Sections 4.2.6.1 and 4.2.7.6 contain information on the threat of terrorist attacks. Section 2.2.2.4 discuss odorization of the natural gas.

P005-5

Section 3.3.7 contains information on the consideration of other offshore and onshore locations in California. The deepwater port would be 12.01 nautical miles (13.83 miles) offshore, as shown on Figure ES-1. Section 4.8 addresses coastal biological conditions and impacts.

P005-3

P005-4

P005-5

## Comment Form/Formulario Para Comentarios

Cabrillo Port LNG Deepwater Port—Revised Draft EIR

Puerto de Aguas Profundas de LNG en el Puerto de Cabrillo—Borrador Revisado del EIR

To receive a copy of the Final EIS/EIR, you must provide your name and address. Para recibir una copia del EIS/EIR Final, por favor proporcionar su nombre y dirección.
Name (Nombre): Rich Ronson
Organization/Agency (Organizatión/Agencia):
Street Address (Calle): 13 th GRANN) t
City (Ciudad): O XNXRI) CX
State (Estado): Zip Code (Código Postal): 73 CD
email address (dirección de correo electrónico):

Please provide written comments on the reverse and drop this form into the comment box.

Proporcione por favor los comentarios escrito en el revés y colóque esta forma en la caja del comentario.

You may also address any written comments to the attention of:

Dwight E. Sanders

California State Lands Commission
Division of Environmental Planning and
Management
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Include the State Clearinghouse number:
2004021107

Comments may also be submitted via email to: BHPRevisedDEIR@slc.ca.gov

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2004021107

Los comentarios también se pueden enviar por correo electrónico a: BHPRevisedDEIR@slc.ca.gov

# All comments must be received by 5 p.m. Pacific Time, May 12, 2006

# Todos los comentarios debe ser recibido por 5 de la tarde, hora Pacífico, el 12 de mayo de 2006

Comments/Comentarios (	(Use additional s	heets if necess	ary/Puede
utilizar hojas adicionales :	si es necesario):		

LNG PORT IS TOTATLY IN APPROPRIATE SO CLOSE	P339-1
TO THE CHANNEL ISCANDS MAKINE SANCTUARY	
AND TO THE COMMUNITIES FROM MALIBU TO	
VENTURA, I HAVE LIVED HERE POR 45 YMS	1
AND HAVE SEEN DEVELOPMENT IN	
BALANCE WITH DEMANDS, LNG 18	P339-2
UNACCEPTABLE TO THE COMMUNITIES	
HORE	

No action will be taken until the environmental review process is completed.

No se tomará ninguna acción hasta que el proceso de revisión ambiental se haya terminado.

## 2006/P339

## P339-1

The FSRU would be located outside of the current boundary of the Channel Islands National Marine Sanctuary (CINMS) and vessels associated with Cabrillo Port operations would not be expected to enter the CINMS.

The deepwater port would be 12.01 nautical miles (13.83 miles) offshore, as shown on Figure ES-1. Section 4.2.7.6 and the Independent Risk Assessment (Appendix C1) contain information on public safety impacts from various incidents at the FSRU. The analysis indicates that the maximum impact distance of an accident would involve a vapor cloud dispersion extending 6.3 nautical miles (7.3 miles) from the FSRU. The FSRU would be located approximately 12.01 nautical miles (13.83 miles) offshore; therefore, consequences of an accident involving LNG transport by carrier and storage on the FSRU would extend no closer than 5.7 nautical miles (6.5 miles) from the shoreline. Figure ES-1 depicts the consequence distances surrounding the FSRU location for worst credible events.

Section 3.3.5, 3.3.6, and 3.3.7 discuss the alternative locations considered.

## P339-2

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders.

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore .
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000. container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Eleanor S. Reich 6353 Malibu Park Ln. Malibu, CA 90265

P443

April 19, 2006

Dwight Sanders
State lands commission,
100 Howe Avenue
Suite 100 South
Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

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Sincoroky

Mul Restro Nicole Restro 8371 Balboa Bl. Northredge Cu 91325 2006/P443

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

From: Richard Reynolds [rar3@shoreline-wireless.com]

Sent: Tuesday, May 02, 2006 12:38 PM

To: DWIGHT SANDERS

Subject: One citizen's opposition to BHP

Mr. Dwight E. Sanders - California State Lands Commission,

I would like to express my profound opposition to the proposed BHP - Cabrillo Liquified Natural Gas Deepwater Port, on the grounds that this is the wrong direction California should be moving in providing energy for our state.

Not only would this use of LNG add massively to the growing gobal greenhouse warming problem, it will add to the hugh regional air-pollution problem of So. California.

As a citizen and 25 year resident of Malibu I am acutely aware of the pollution in the County of Los Angeles and resent the notion that we citizens cannot decide what our future will hold for us and our children. We have the opportunity to choose what type of energy we want to consume and I choose conservation, renewables, and environmentally responsible forms of energy. I am willing to pay more for these types of energy, though I believe that in the long run it will be far more economical to avoid environmental degradation and develop a more sustainable energy economy. The State of California and our children will benefit from thoughtful, wise, reasoned decisions regarding our energy future.

We should not rush into arrangements that will commit our state to using forms of energy that have shown themselves to be harmful and retrogressive. The solar energy potential of the State of California is nearly without bounds. Please let us tap this resource before we install high-risk infrastructure in a valuable marine environment.

Thank you for your regard in this matter, Respectfully yours, Richard Reynolds.

## 2006/P035

## P035-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

#### P035-2

P035-3

Section 4.6.1 and 4.6.4 discuss the emissions from the Project and the potential effects on air quality. Sections 4.6.1.4 and 4.6.2 contain information on Project emissions of greenhouse gases and recent California legislation regarding emissions of greenhouse gases.

## P035-2

P035-3

P035-1

Sections 3.3.1 and 3.3.2 address conservation and renewable energy sources, within the context of the California Energy Commission's 2005 Integrated Energy Report and other State and Federal energy reports, as alternatives to replace additional supplies of natural gas.



2006/P404

April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

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- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000, container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely, lysha Richard

Tyisha Richardson 375 Redundo Au #285 Long Beach, Ca 90814

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

## **Comment Form/Formulario Para Comentarios**

Cabrillo Port LNG Deepwater Port—Revised Draft EIR
Puerto de Aguas Profundas de LNG en el Puerto de Cabrillo—Borrador Revisado del EIR

To receive a copy of the Final EIS/EIR, you must provide your name and address.
Para recibir una copia del EIS/EIR Final, por favor proporcionar su nombre y dirección.
Para recibir una copia del EIS/EIR Final, por favor proporcionar su nombre y dirección.  Name (Nombre):
Organization/Agency (Organizatión/Agencia):
Street Address (Calle): 27030 MOLLBU COVE (O) COVE
City (Ciudad): City (Ciudad):
State (Estado): Zip Code (Código Postal):
email address (dirección de correo electrónico):

Please provide written comments on the reverse and drop this form into the comment box.

Proporcione por favor los comentarios escrito en el revés y colóque esta forma en la caia del comentario.

You may also address any written comments to the attention of:

Dwight E. Sanders

California State Lands Commission
Division of Environmental Planning and
Management
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Include the State Clearinghouse number:
2004021107

Comments may also be submitted via email to: BHPRevisedDEIR@slc.ca.gov

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100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Incluir el número de State Clearinghouse:
2004021107

Los comentarios también se pueden enviar por correo electrónico a: BHPRevisedDEIR@slc.ca.gov

# All comments must be received by 5 p.m. Pacific Time, May 12, 2006

# Todos los comentarios debe ser recibido por 5 de la tarde, hora Pacífico, el 12 de mayo de 2006

Comments/Comentarios (Use additional sheets if necessary/Puede utilizar hojas adicionales si es necesario):
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and result of living
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Maurbil
No action will be taken until the environmental review process is completed.
No se tomará ninguna acción hasta que el proceso de revisión ambiental se haya terminado.

## 2006/P206

## P206-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

## P206-2

P206-1

P206-2

Sections 4.6.4 and 4.18.4 discuss the potential impacts to air and water quality. Sections 4.7.4 and 4.8.4 discuss the potential impacts to marine and terrestrial environments.

From: Riles & Co [office@rilesco.com] Sent: Wednesday, April 19, 2006 1:08 PM To: BHPRevisedDEIR@slc.ca.gov

Cc: 'Cathleen Summers'

Subject: Opposition to Cabrillo Port LNG Plan

Dwight Sanders State Lands Commission 100 Howe Ave, Suite 100-South Sacramento, CA 95825

Dear Mr. Sanders:

Pat and Chris Riley, as long time residents of Malibu, strongly oppose BHP Billiton's plan to build a floating Cabrillo Port LNG facility off the coast. Due to a family matter, we are unable to attend the hearings in person, but want to be on record as strongly opposing this plan.

We may be contacted at office@rilesco.com for further comment.

Thank you, Pat & Chris Riley 2006/V015

## V015-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

V015-1

From: Tim Riley [Tim.Riley@gte.net] **Sent:** Friday, May 12, 2006 6:58 PM

To: BHPRevisedDEIR@slc.ca.gov; SANDERD@slc.ca.gov; mprescott@comdt.uscg.mil

**Subject:** State Clearing House #: 2004021107

May 12, 2006

## Comments Regarding the Revised Draft EIS/EIR for the Cabrillo Port LNG Deepwater Port Application

Docket #: USCG 2004-16877

State Clearing House #: 2004021107

Submitted By:

Tim Riley and Hayden Riley

Co-Producers of the LNG Documentary film: The Risks and Danger of LNG

Co-Hosts of http://TimRileyLaw.com Co-Hosts of http://LngDanger.com

Phone: 805-984-2350

We respectfully urge the no-action / no project alternative, and that MARAD not approve the application for the DWP, and CSLC not approve the application for the lease of the sub sea pipelines right-of-way based in part upon the following:

## THE APPLICANT CANNOT DEMONSTRATE THE NECESSARY HISTORY TO CONSTRUCT OR OPERATE AN LNG DEEP-WATER PORT.

 $\underline{\text{TITLE 33}} > \underline{\text{CHAPTER 29}} > \underline{\text{Sec. 1504}} \quad \text{mandates that each application shall include the technical capabilities of the applicant to construct or operate the deepwater port.}$ 

This applicant, never existed before March 12, 2003, and has actually admitted in their application: "BHP Billiton LNG International Inc. is a new entity - with no operating history"

As a new entity - they obviously cannot demonstrate - the necessary history <u>to</u> <u>construct or operate an LNG deep-water port.</u>

THE MOST CRITICAL ASPECT IS SAFETY AND INTEGRITY OF THE OPERATION

The technologies needed to transfer a cryogenic liquid from an LNG tanker to an FSRU have not been demonstrated - anywhere on earth. We will be guinea pigs.

You

environmental review has not determined that the applicant can indeed construct and operate the Deep Water Port so as to prevent and minimize adverse impact upon the marine environment and public safety. The applicant can not demonstrate this because - the technology to be applied is unavailable and nonexistent. It is pure speculation that it will work flawlessly first time out of the box.

## P092-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

#### P092-2

Section 1.1.1 contains information on the process used by the Deepwater Port Act (DWPA) of 1974, as amended, which establishes a licensing system for ownership, construction and operation of deepwater port (DWP) facilities. As discussed, the role of the Maritime Administration (MARAD) is to balance the Congressionally imposed mandates (33 U.S.C. 1501) of the DWPA, including those to protect the environment; the interests of the United States and those of adjacent coastal states in the location, construction, and operation of deepwater ports; and the interests of adjacent coastal states concerning the right to regulate growth, determine land use, and otherwise protect the environment in accordance with law. MARAD is responsible for determining whether the criteria specified in the DWPA are met.

## P092-3

Section 2.1 contains information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU. The Cabrillo Port must be designed in accordance with applicable standards, and the U.S. Coast Guard has final approval. Section 2.2.2 describes the FSRU. Section 2.2.2.3 describes the LNG receiving, storage, and regasification facilities. Several LNG facilities are currently operating in the U.S. and there are many facilities that use cryogenic liquids. The technology to transport cryogenic fluids in pipes is currently in use in the U.S. Section 4.2.4 contains information on Federal and State agency jurisdiction and cooperation. The Deepwater Port Act specifies regulations that all deepwater ports must meet; Section 4.2.7.3 contains information on design and safety standards for the deepwater port. The EIS/EIR's analyses have been developed with consideration of these factors and regulations and in full conformance with the requirements of NEPA and the CEQA.

P092-3

P092-1

P092-2

It is Pollyanna speculation to assume the FSRU, which will be moored by chain and cable to the ocean floor, in a seismically active area, will withstand earthquakes, hurricanes, and tsunamis. Consider the eye-opening and heart-wrenching events in Malaysia and New Orleans.

BHP Billiton - with self-serving bravado - claims that California coastal communities - can trust its offshore platform experience - and safety record.

Well, now we have tangible evidence of BHP Billiton's - **inability to moor and secure** - an offshore oil/gas platform.

According to the Australian Financial Review, of September 28, 2005:

"BHP Billiton is mystified how one of its supposedly hurricane-proof offshore oil and gas platforms broke its moorings and drifted out of control for almost 270 kilometres across the Gulf of Mexico during Hurricane Rita at the weekend."

"The massive anchor cables, which tether the floating platform to the sea bed, broke free, allowing the unmanned rig to drift..."

And according to BHP Billiton spokeswoman Emma Meade, - "'The facility was designed to withstand these conditions, so we don't know why it went off location,'"

The Application involves a floating facility storing enormous volumes of ultra hazardous materials which can break free bounding toward shore producing an inferno extending many miles.

Where both the Applicant and the Project demonstrate - no experience - then the Drafters must acknowledge - that this is a recipe for unprecedented disaster and recommend that the application for license be denied.

# THE BHPB APPLICATION MUST NOT BE APPROVED BECAUSE IT IS NOW QUESTIONABLE WHETHER BHPB CAN ACTUALLY SUPPLY LNG TO CABRILLO PORT.

It is questionable that BHPB will ever receive the necessary joint venture approval to proceed with the project from ExxonMobil.

Based upon the disclosures revealed in the article below, the BHPB application review process requires a thorough and independent investigation into BHPB's ACTUAL ability to deliver on its LNG supply projections. The independent investigation needs to rely on more than the applicants mere representations.

Also, the independent investigation needs to fully examine the public dispute and the legal relationship between BHPB and its joint venture ExxonMobil to independently determine whether or not the BHPB applicant has a legal right to proceed or undertake the project without joint venture approval.

P092-4

P092-4

The Typhoon Platform, a tension leg production platform in the Gulf of Mexico jointly owned by Chevron and BHPB, was severed from its mooring and severely damaged during Hurricane Rita. The Typhoon Platform was designed for a different purpose using different design criteria.

The Cabrillo Port must be designed in accordance with applicable standards, and the USCG has final approval. Section 2.1 contains information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU. Section 4.2.4 contains information on Federal and State agency jurisdiction and cooperation. The Deepwater Port Act specifies performance levels that all deepwater ports must meet; Section 4.2.7.3 contains information on design and safety standards for the deepwater port. Section 4.2.8.2 contains information on pipeline safety and inspections. If the FSRU were to become unmoored, the patrolling tugboats could be used to hold it in place. Section 4.3.1.4 addresses this topic.

The regulation implementing the Deepwater Port Act (33 CFR 149.625 [a]) states, "Each component, except for those specifically addressed elsewhere in this subpart (for example, single point moorings, hoses, and aids to navigation buoys), must be designed to withstand at least the combined wind, wave, and current forces of the most severe storm that can be expected to occur at the deepwater port in any 100-year period." By definition, a 100-year wave event is expected to occur once every 100 years on average over the course of many hundreds of years. The EIS/EIR's analyses have been developed with consideration of these factors and regulations.

P092-5

P092-5

The Applicant has stated that the source of the natural gas for this Project would be either Australia, Malaysia, or Indonesia. As these countries are sovereign nations, the Applicant would be required to comply with those countries' applicable environmental laws and regulations pertaining to the extraction and development of natural gas fields as well as those pertaining to the liquefaction and transfer of LNG to LNG carriers. Consideration of the Applicant's compliance with a foreign nation's applicable laws and regulations is beyond the scope of this EIS/EIR.

The Applicant has indicated that the Scarborough natural gas field in the state of Western Australia could be a potential source of natural gas for the Project. In May 2005, the Honourable Ian Macfarlane, the Australian Federal Minister for Industry, Tourism



## 2006/P092

and Resources, stated, "Development of the Scarborough Field and related support facilities must be carried out in accordance with applicable laws and regulations of both the Australian Government (federal) and the State Government in Western Australia. Any activities will be subject to assessment and approvals under the applicable environmental legislative regimes. These include, among others, the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999, governing matters of national environmental significance, and, under State legislation, the Western Australian Environmental Protection Act 1986. The objectives of the Commonwealth's environmental regulatory regimes are to provide for the protection of the environment and ensure that any petroleum activity is carried out in a way that is consistent with the principles of ecologically sustainable development." (Appendix L contains a copy of this letter.)

Sections 1.3 and 2.2.1 discuss the natural gas to be imported to the Project. If the Applicant were not able to secure natural gas from these sources, it would use another source that would meet California's requirements for pipeline-quality gas. Section 4.6.2 describes California's requirements for pipeline-quality gas.

P092-5 Continued

P092-5 Continued

The application approval process must independently investigate the following enlightening and troubling public dispute between BHPB and its joint venture ExxonMobil.

See: The Age, April 11, 2005, BHP and ExxonMobil in gas dispute

http://www.theage.com.au/news/Business/BHP-and-ExxonMobil-in-gas-dispute/2005/04/11/1113071909344.html?oneclick=true#

A dispute between the owners of the Scarborough gas field off the Western Australian coast escalated as BHP Billiton Ltd's joint venture partner disputed the size of the reserves.

BHP Billiton Petroleum chief executive Philip Aiken said three recent appraisal wells had increased certainty about the field, which it estimated to contain eight trillion cubic feet of gas.

"That's our view, but ExxonMobil has a lower expectation than we did," Mr Aiken said.

BHP Billiton and ExxonMobil equally own the Scarborough field, but ExxonMobil is the operator.

"ExxonMobil believes Scarborough is unlikely to be commercially viable in the near term," ExxonMobil Australia chairman Mark Nolan told journalists on the sidelines of the Australian Petroleum Production and Exploration Association's annual conference in Perth.

"So we do have a difference of opinion.

"Our view is that BHP's assessment (of reserves) is very high and we don't agree."

Mr Nolan said ExxonMobil was aware that BHP Billiton has recently drilled some more wells but it did not have access to the data yet.

"But even so, we are of the view that their assessment is very much on the high side."

Mr Aiken said BHP Billiton hoped to be able to push the button on its planned Cabrillo Port liquefied natural gas terminal in California by the end of 2005.

That access to the energy hungry North American west coast would improve the commercial viability of Scarborough, he said.

"Our view at the moment is that if we could get Cabrillo Port up then we'd have a market and that would make Scarborough more feasible."

But Mr Nolan said development of Cabrillo Port affected BHP Billiton's share of the Scarborough gas and did not change ExxonMobil's view of the project, which would need joint venture approval to proceed.

"When we see our side of the project, which is the development and sale of 50 per cent of the offshore gas, we don't see that as commercially viable at this stage," Mr Nolan said.

## THE APPLICANT CAN NOT ADEQUATELY MITIGATE THE FOLLOWING:

Re: Geological Resources and Soils

The applicant can not adequately mitigate the adverse impacts on the facilities and pipeline from seismic hazards or the adverse impacts to onshore facilities from liquefaction or the adverse impact on coastal communities resulting from the FSRU being ripped from its moorings by foreseeable earthquakes, liquefaction, shaking hazards or tsunamis causing the FSRU to bound uncontrollably towards shore holding tens of billions of gallons of methane.

See: Open-File Report 2004-1286 by the U.S. Department of the Interior and U.S. Geological Survey  $\,$ 

## **Executive Summary:**

"This report examines the regional seismic and geologic hazards that could affect proposed liquefied natural gas (LNG) facilities in coastal Ventura County, California. Faults throughout this area are thought to be capable of producing earthquakes of magnitude 6.5 to 7.5, which could produce surface fault offsets of as much as 15 feet. Many of these faults are sufficiently well understood to be included in the current generation of the National Seismic Hazard Maps; others may become candidates for inclusion in future revisions as research proceeds. Strong shaking is the primary hazard that causes damage from earthquakes and this area is zoned with a high level of shaking hazard. The estimated probability of a magnitude 6.5 or larger earthquake (comparable in size to the 2003 San Simeon quake) occurring in the next 30 years within 30 miles of Platform Grace is 50-60%; for Cabrillo Port, the estimate is a 35% likelihood. Combining these probabilities of earthquake occurrence with relationships that give expected ground motions yields the estimated seismic-shaking hazard. In parts of the project area, the estimated shaking hazard is as high as along the San Andreas Fault. The combination of long-period basin waves and LNG installations with large long-period resonances potentially increases this hazard..."

Full Report http://pubs.usgs.gov/of/2004/1286/of2004-1286.pdf

In light of the recent news event referenced above, coupled with the Recent U.S. Geological Survey, referenced above, the applicant's offshore platform mooring capability appears to be highly questionable. It would be Pollyanna to now believe that this applicant can safely secure its monstrous untested and untried floating platform in a seismically active area with a history of tsunamis. The applicant cannot safely guarantee that the FSRU will never brake free from its moorings and bound towards shore producing a massive disaster, particularly where, "BHP Billiton is mystified how one of its supposedly hurricane-proof offshore oil and gas platforms broke its moorings and drifted out of control for almost 270 kilometres."

A BHPB Cabrillo Port FSRU platform disaster is clearly foreseeable.

An LNG floating storage facility is far more vulnerable than BHPB's offshore gas/oil platform that went adrift during hurricane Katrina. During a hurricane, earthquake or tsunami, breach of LNG holding tanks and pipes could cause the cryogenic contents to spill on the facility platform causing massive and extensive brittle fracturing throughout the

P092-6

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P092-8

Section 4.11 contains information on potential seismic and geologic hazards and mitigation measures to address impacts. Impacts GEO-3 and GEO-4 in Section 4.11.4 contain information on potential impacts and mitigation related to earthquakes and related hazards. Appendices J1 through J4 contain additional evaluations of seismic hazards. Section 4.11.1.5 and Impact GEO-5 in Section 4.11.4 contain information on the potential for damage to pipelines and other facilities and mitigation measures to address potential impacts that could occur due to mass movement of soil, including landslides, mudflow, lateral spreading, subsidence, liquefaction, or collapse. Section 4.11.1.8 and Impact GEO-6 in Section 4.11.4 contain information on potential impacts from tsunamis and mitigation measures to address impacts. As discussed in Section 4.11.4, "[t]here is little risk of damage from tsunamis to facilities located in deep water, such as the proposed location of the FSRU..."

If the FSRU were to become unmoored, the patrolling tugboats would be used to hold it in place. "Disabled Vessels and Anchorage" in Section 4.3.1.4 contains information on this potential situation and the actions that would be taken if it were to occur.

Section 1.0 contains information on the proposed Project facilities, including information on the LNG storage capacity of the FSRU. As stated, the FSRU would have "a total LNG storage capacity of about 72 million gallons..."

P092-7

The United States Geological Survey (USGS) prepared the report Comments on Potential Geologic and Seismic Hazards Affecting Coastal Ventura County, California (Open-File Report 2004-1286, 2004), which is included as Appendix J1. The USGS report was prepared in response to a letter to the USGS dated June 25, 2004, from Representative Lois Capps (CA 23rd District), which specifically requested advice on geologic hazards that should be considered in the review of proposed LNG facilities offshore Ventura County, California, including the Cabrillo Port LNG Deepwater Port Project. The USGS report examines the regional seismic and geologic hazards that could affect proposed LNG facilities in coastal Ventura County, California. Information from the USGS report is incorporated in Section 4.11, which contains information on seismic and geologic hazards, and conclusions from the USGS report were used in the analysis. Appendices J2 through J4 contain additional evaluations of seismic hazards.

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The Typhoon Platform, a tension leg production platform in the Gulf of Mexico jointly owned by Chevron and BHPB, was severed from its mooring and severely damaged during Hurricane Rita. The Typhoon Platform was designed for a different purpose using different design criteria.

The Cabrillo Port must be designed in accordance with applicable standards, and the USCG has final approval. Section 2.1 contains information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU. Section 4.2.4 contains information on Federal and State agency jurisdiction and cooperation. The Deepwater Port Act specifies performance levels that all deepwater ports must meet; Section 4.2.7.3 contains information on design and safety standards for the deepwater port. Section 4.2.8.2 contains information on pipeline safety and inspections. If the FSRU were to become unmoored, the patrolling tugboats could be used to hold it in place. Section 4.3.1.4 addresses this topic.

The regulation implementing the Deepwater Port Act (33 CFR 149.625 [a]) states, "Each component, except for those specifically addressed elsewhere in this subpart (for example, single point moorings, hoses, and aids to navigation buoys), must be designed to withstand at least the combined wind, wave, and current forces of the most severe storm that can be expected to occur at the deepwater port in any 100-year period." By definition, a 100-year wave event is expected to occur once every 100 years on average over the course of many hundreds of years. The EIS/EIR's analyses have been developed with consideration of these factors and regulations.

Impact MM PS-1f in Section 4.2.7.6 contains information on structural component exposure to temperature extremes.

facility platform and further cause brittle fracturing breakage of the mooring connections, thus allowing the FSRU to bound uncontrollably adrift towards shore.

Essentially, it is the cryogenic content at the facility - once spilled - that would cause extreme vulnerability to the integrity of the platform itself during a sever hurricane, storm, tsunami or earthquake.

A California LNG disaster producing thousands of deaths, thousands of serious burn victims and billions of dollars of property losses is too costly a price to pay for imported natural gas, and is an unacceptable risk.

A California LNG disaster should not be part of BHPB's offshore platform learning curve.

The applicant must not be permitted to moor a monstrous offshore platform loaded with ultra hazardous cryogenic materials that can vaporize into billions of gallons of flammable methane that can ultimately cause an inferno extending for several miles. Incinerating boaters and tourists, loaded cargo ships or possibly even residential communities such as the Malibu Colony is too large a risk to take on this guinea pig project.

The inevitable 'blame game' of tomorrow should be avoided by acting responsibly today.

The California State Lands Commission has the obligation and the opportunity to stop a foreseeable earthquake prone California LNG disaster before it happens.

# BHPB REGARD FOR GAS FACILITY SAFETY MUST BE CONSIDERED AND ADEQUATELY INVESTIGATED

The drafters must review and independently investigate the applicant's safety record and alleged disregard for local safety laws as demonstrated in the following news article:

According to the National Nine News - NineMSN of Australia on May 25, 2005, Full Story: <a href="http://news.ninemsn.com.au/article.aspx?id=8371">http://news.ninemsn.com.au/article.aspx?id=8371</a>

#### Abstracts:

"Resources giant BHP Billiton is facing four charges over a fatal gas explosion at its Boodarie iron plant in Western Australia's north."

"WA's Department of Industry and Resources (DoIR) said it had charged BHP Billiton Direct Reduced Iron under sections 9(1) and 9(8) of the Mines Safety and Inspection Act 1994."

"The charges follow the department's assessment of a report ordered into the Boodarie HBI operations by the State Mining Engineer and DoIR's own investigation of the incident."

"The case will be heard in Perth Magistrates Court." ©AAP 2005

This news article presents very serious charges, and casts doubt over the applicant's ability to protect human life from gas explosion and conform with required governmental safety regulations.

P092-8 Continued

P092-8 Continued

P092-9

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P092-9

Section 2.2 describes Cabrillo Port as proposed: an offshore floating storage and regasification unit (FSRU) and associated natural gas pipelines to deliver natural gas to Oxnard, California, for distribution in Southern California. The Project does not include a platform.

P092-10

Section 4.1.8 contains information on weather and potential storm conditions that can be expected in Southern California. The regulations implementing the Deepwater Port Act (33 CFR 149.625 [a]) require that "each component, except for hoses, mooring lines, and aids to navigation buoys, must be designed to withstand at least the combined wind, wave, and current forces of the most severe storm that can be expected to occur at the deepwater port in any 100-year period."

P092-11

By definition, a 100-year wave event is expected to occur once every 100 years on average over the course of many hundreds of years. The estimated 100-year wave height (7+ meters) and peak wave period (16+ seconds) at the FSRU exceed any waves generated locally by strong northwest winds. The most extreme waves are primarily generated in the deep ocean and propagate through the Channel Islands.

P092-12

Section 4.11 contains information on potential seismic and geologic hazards and mitigation measures to address such impacts. Impacts GEO-3 and GEO-4 contain information on potential impacts and mitigation related to earthquakes and related hazards. Appendices J1 through J4 contain additional evaluations of seismic hazards. Section 4.11.1.8 and Impact GEO-6 in Section 4.11.4 contain information on potential impacts from tsunamis and mitigation measures to address impacts. As discussed in Section 4.11.4, "[t]here is little risk of damage from tsunamis to facilities located in deep water, such as the proposed location of the FSRU..."

P092-10

Section 2.2 describes Cabrillo Port as proposed; the proposed Project does not include a platform. Sections 2.1 and 4.2.7.3 contain information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU and LNG carriers. As stated in Section 2.2.2.3, "[e]ach Moss tank would be 184 feet (56 m) in diameter and would have an LNG storage capacity of 24 million gallons (90,800 m<sup>3</sup>). The total LNG storage capacity on the FSRU would be approximately 72



million gallons (273,000 m<sup>3</sup>)." Section 4.16.4 contains information on commercial shipping. Section 4.15.4 contains information on impacts on recreational boating.

The Independent Risk Assessment (IRA), which was independently reviewed by the U.S. Department of Energy's Sandia National Laboratories, evaluates the consequences of a potential vapor cloud (flash) fire, as discussed in Section 4.2.7.6 and the IRA (Appendix C1). The IRA determined that the consequences of the worst credible accident involving a vapor cloud fire would be more than 5.7 NM from shore at the closest point, as summarized in Table 4.2-1. Figure 2.1-2, Consequence Distances Surrounding the FSRU Location for Worst Credible Events, depicts the maximum distance from the FSRU in any direction that could be affected in the event of an accident. The shape and direction of the affected area within the circle depicted in Figure 2.1-2 would depend on wind conditions and would be more like a cone than a circle, but would not reach the shoreline. As shown in Table 2.1-2, the distance from the proposed location of the FSRU to the closest point of the shipping lanes is 2.06 NM (2.4 miles). As stated in Section 4.2.7.2, a vapor cloud explosion "would be confined to a local area." As stated in Section 4.3 of the IRA, "[p]ool fire hazards are not predicted to reach the coastwise shipping lane..." The IRA determined that the consequences of the worst credible accident involving a vapor cloud fire would encompass the shipping lane.

Impact MT-4 in Section 4.3.4 contains information on potential impacts of this type of incident on marine traffic and the measures that would take place if an incident occurred. AM PS-2a, AM MT-3a, AM MT-3b, and AM MT-3c are measures the Applicant has incorporated into the proposed Project that address this impact. MM PS-3b and MM MT-3f are mitigation measures that address this potential impact. If an incident were to occur, the Applicant would initiate emergency shutdown procedures and use all available communication devices on the FSRU and Project vessels to immediately notify vessels in the area, including hailing and Securite broadcasts. Such warnings would allow vessels in the area to undertake evasive maneuvers to avoid or minimize potential harm. As stated in Section 4.3.4, "[i]f an accident were to occur, there would be unmitigable impacts on public safety (Class I); however, the impact on marine traffic would be reduced to a level that is below the marine traffic significance criteria (Class II)."

#### P092-11

Section 1.5 contains information on opportunities for public comment. After the MARAD final license hearing, the public will have 45 days to comment on the Final EIS/EIR and the license



application. The Federal and State agencies will have an additional 45 days to provide comments to the MARAD Administrator. The Administrator must issue the Record of Decision within 90 days after the final license hearing. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease. The California Coastal Commission will also hold a hearing. Comments received will be evaluated before any final decision is made regarding the proposed Project.

#### P092-12

The Applicant is required to adhere to all applicable Federal, State, and local laws, regulations, and permit requirements in the execution of all phases of the Project. Section 4.2.6 states, "The environmental and occupational safety record for the Applicant's worldwide operations, including, for example, mining ventures overseas, was not considered in evaluating potential public safety concerns associated with this Project because such operations are not directly comparable to the processes in the proposed Project." The conclusions in the EIS/EIR are based on the analyses of potential environmental impacts of the proposed Project and the implementation assumptions stated in Section 4.1.7. However, the Applicant's safety and environmental record will be taken into account by decision-makers when they consider the proposed Project.

The volume of the gas relative to the story referenced above, pales in comparison to the potential for disaster and massive injuries from a violation of safety regulations in the management of millions of gallons of LNG and billions of gallons of regasified natural gas.

The drafters must independently investigate and determine the current status of the entire court matter, including all appeals in Australia. If it is determined that the applicant violated Australian law thus causing death and multiple burn victims from a gas explosion, then it would be a gross dereliction of duty to approve the applicant's license here in the United States to operate an LNG facility that is untried and unproven.

## Accordingly, the application should be denied.

Having received notice of the forgoing news event, approval of the BHPB application to locate and moor an LNG facility platform offshore California's populated coastal communities would be a gross dereliction of duty by the USCG, MARAD, California State Lands Commission, the Secretary of the DOT, and Gov. Schwarzenegger.

Moreover, the commentators contend that you have not adequately reviewed the following:

#### 1. Air Quality:

Adverse impacts on regional air quality, including visibility and other resources particularly where the prevailing onshore winds will deliver the projects pollution onshore to both Ventura and Los Angeles County's.

#### 2. Hazards and Risk / Safety:

LNG releases resulting in potential impacts on third parties from fire, radiant energy, or ignitable gas clouds;

Adverse impacts of "cold water" resulting from LNG release to marine mammals; Adverse impacts of pipeline failures on humans, property, and marine and terrestrial Ecosystems:

#### 3. Marine Transportation:

Disruption in marine transportation, adversely affecting existing ship traffic to and from the ports of Port Hueneme and Oxnard; Potential navigational hazards to marine traffic:

#### 4. Cumulative Impacts:

The cumulative Adverse impacts of the Project with other projects and probable future projects, including the offshore LNG facilities proposed by Crystal Energy and Woodside, and the onshore Sound Energy Solutions LNG project proposals, along with the cumulative effects of other major projects in the area.

#### 5. Aesthetics:

Adverse impacts of the view shed by construction and operations.

#### 6. Hazardous Materials (HAZMAT)

Adverse impacts from HAZMAT spills including petroleum, LNG, hydrocarbons, fuels, lubricant, urea, paints, solvents, and sanitary waste;

P092-12 Continued

#### P092-12 Continued

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#### P092-13

The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.1.8 contains a detailed description of the marine climatic setting. Section 4.6.1.2 has been revised to provide an expanded discussion of the potential transport of offshore air pollutant emissions to onshore areas due to meteorological conditions. Section 4.6.4 contains revised analyses of the impacts on air quality from the emissions of criteria pollutants, ozone precursors, and toxic air pollutants from the FSRU and Project vessels.

The air dispersion modeling analysis of the criteria air pollutant emissions from FSRU and Project vessel operational activities includes prediction of impacts at receptors located from the coastline to 2 miles inland spanning approximately 44 miles from Ventura to Malibu. Additional receptors were also placed along the coastline spanning approximately 38 miles from Malibu to the Palos Verdes Peninsula located directly south of Los Angeles.

Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures.

P092-15 P092-14

> Section 4.2.7.6 and the Independent Risk Assessment (Appendix C1) contain information on public safety impacts from various incidents at the FSRU. The analysis indicates that the maximum impact distance of an accident would involve a vapor cloud dispersion extending 6.3 nautical miles (7.3 miles) from the FSRU. The FSRU would be located approximately 12.01 nautical miles (13.83 miles) offshore; therefore, consequences of an accident involving LNG transport by carrier and storage on the FSRU would extend no closer than 5.7 nautical miles (6.5 miles) from the shoreline. Figure ES-1 depicts the consequence distances surrounding the FSRU location for worst credible events.

#### P092-15

Impact BioMar-6 in Section 4.7.4 contains information on the potential impacts of an incident on marine biota. Section 4.2.8 addresses safety issues related to natural gas pipelines. Section 4.2.8.4 contains information on the estimated risk of Project pipeline incidents. Section 4.16.1.2 contains information on

P092-18

P092-19



property values. Project impacts on coastal ecosystems would be limited to the pipeline corridor during construction and operation (see Section 2.1). The shore crossing required for the proposed Project would be installed beneath Ormond Beach. With the proposed mitigation, the potential impacts of construction, operation, or an accident on terrestrial biological resources would be reduced to a level that is below the significance criteria.

#### P092-16

Section 4.3.4 contains information on impacts on marine traffic during construction and (Impact MT-1) and operations (Impact MT-2), and on long-term Interference with Operations at Port Hueneme. Implementation of the mitigation measures identified in Section 4.7.4 would decrease impacts to below their significance criteria.

#### P092-17

Section 4.20.3 contains information on cumulative impacts. The Long Beach Board of Harbor Commissioners voted on January 22, 2007, to end the environmental review of a proposal by SES and issued the following statement: "After deliberation, based upon an opinion from Long Beach City Attorney Robert Shannon, who concluded that the Environmental Impact Report on the proposed LNG project 'is and in all likelihood will remain legally inadequate,' and since an agreement between Sound Energy Solutions and the City does not appear to be forthcoming, the Board of Harbor Commissioners disapproves the project and declines to pursue further negotiations" (Port of Long Beach 2007).

#### P092-18

Section 4.4 and Appendix F contain information on visual resources, impacts, and mitigation. Appendix F describes how visibility from various distances was evaluated and provides additional simulations prepared for viewpoints at elevated sites along the Malibu coastline and inland areas.

#### P092-19

Section 4.12.4 contains information on potential hazardous materials spills and the mitigation measures to prevent or address them. Sections 2.2.2.6 and 4.18.4 contain information on the management of sanitary waste and its treatment.

7. Adverse impacts from the permanent and temporary areas of restricted access around the FSRU.

### 8. Water Quality:

Adverse impacts from LNG or HAZMAT spills, increases in turbidity, or unearthing of contaminated sediments;

- 9. The draft has not satisfactorily shown that the project and delivering tankers can safely be protected from terrorist sabotage or attack, or that the cost of such security will make the price of the ultimate LNG gas prohibitive;
- 10. The daft does not address the issue of the economic repercussions that could result from a mere terrorist threat to tanker or facility, thus halting tanker traffic and causing interruption of delivery of the LNG supplies to California energy markets. Once we have become committed and dependent upon receiving gas from the applicant's project any interruption could have severe economic repercussions.
- 11. The draft has not addressed the issue of raising the financial liability limitation pursuant to the Deepwater Port Act.

#### P092-20

Section 2.2.4 discusses the offshore safety zone, which under Federal law is an area to which access is limited to authorized persons, vehicles, or vessels. As discussed in Section 4.3.1.1, no fishing grounds are located in the proposed 1,640-foot (500 m) safety zone around the FSRU, which is in deep water, thereby limiting fishing activities. As discussed in Impact MT-2 in Section 4.3.4, security zones only apply to LNG carriers in Federal waters (within 12 NM from shore). Since Project LNG carriers would not have security zones, cargo vessels would have to observe the "rules of the road" when transiting near an LNG carrier, the same measures they would take when transiting near any large commercial vessel. Impact SOCIO-1 in Section 4.16.4 contains information on the potential decrease in catch revenues for commercial fisheries due to exclusion from fishing areas. Impact REC-2 in Section 4.15.4 contains information on restricted recreational fishing in the Area to Be Avoided.

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P092-20

P092-21

P092-22

P092-23

#### P092-21

Section 4.18.4 contains information on potential impacts on water quality and mitigation measures to address such impacts.

#### P092-22

Table 4.2-2 and Sections 4.2.6.1 and 4.2.7.6 contain information on the threat of terrorist attacks. Section 4.2.5 contains information on liability in case of an accident and reimbursement for local agencies.

#### P092-23

The EIS/EIR evaluates environmental effects; the potential economic effects of a terrorist event may be taken into account by decision-makers when they consider the proposed Project.

#### P092-24

Section 4.2.5 contains information on liability in case of an accident and reimbursement for local agencies.

From: DOLORES RIVELLINO [godofmalibu@verizon.net]

**Sent:** Thursday, April 27, 2006 8:53 PM **To:** BHPRevisedDEIR@slc.ca.gov

Subject: LNG PROPOSAL FOR MALIBU

#### TO WHOM IT MAY REALLY CONCERN...

THE IDEA OF PUTTING THIS FLOATING LIQUEFIED NATURAL GAS FACILITY ON MALIBU'S WESTERN COAST IS SO TRAGIC.

MY CONCERNS ARE FOR OUR ENVIRONMENT...HOW CAN YOU ALLOW GREED TO OVERRIDE THE CONTINUED DISTRUCTION OF OUR WATER, AIR AND MARINE LIFE.????

WE WILL NEVER GET USE TO THE PRESENCE OF A 14 STORY ENVIONMENTAL TIME BOMB ...PUBLIC SAFETY IS INVOLVED..

WE WILL FIGHT THIS BECAUSE IT'S WRONG AND CRIMINAL ...IT'S MASS GENOCIDE FOR OUR ENIRONMENT.

DOLORES WALSH MALIBU, CALIFORNIA P025-1

Sections 4.6.4, 4.7.4, and 4.18.4 discuss the Project's potential impacts to air quality, marine life, and water quality, respectively.

P025-2

Section 4.2 and Appendix C contain information on public safety impacts.

P025-1

P025-2

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P317-1

P317-2

P317-3

DWIGHT E. SANDERS CALIFORNIA STATE LANDS COMMISSION DIVISION OF ENVIRONMENTAL PLANNING AND MANAGEMENT 100 HOWE AVENUE, SUITE 160 SOUTH SACRAMENTO, CA 95825

DEAR MR. SANDERS...

I AM SO CONCERNED ABOUT OUR ENVIRONMENT DETIONATING BY THE MINUTE FROM JUST NORMAL EVERY DAY CARELESSNESS AND NOW A PROPOSAL BY THE AUSTRALIAN DEVELOPER BHP WILL DESTROY THE COASTLINE OF MALIBU.

A PLACE THAT NOT ONLY IS A RESTFUL AND BEAUTIFUL INSPIRATION FOR THE RESIDENTS OF MALIBU AND ITS SURROUNDING COMMUNITIES BUT ALSO FOR THOSE WHO VISIT THE COASTLINE FROM ALL OVER CALIFORNIA AND ALL OVER THE WORLD.

HOW ABOUT THE MANY UNLAWFUL EXPLORATIONS THIS COMPANY HAS BEEN INVOLVED IN; GAG ISLAND, IN INDONESIA, NEW SOUTH WALES, ATTACKING THE ENDANGERED SPECIES HABITAT IN THE PHILIPPINES AND THE POISONING OF THE RIVERS DOWNSTREAM FROM THE OK TEDI MINE LOCATED IN THE RAIN FOREST COVERED STAR MOUNTAINS OF PAPUA NEW GUINEA, THAT MAY LEAVE THE WATERWAY DEAD FOR BETWEEN 200-300 YEARS

DO WE WANT TO WELCOME THIS CORPORATION INTO OUR WATERS//?????NO TO BHBP AND NO TO ANY LNG PROJECTS. YES TO ENVIRONMENTALLY SOUND, SUSTAINABLE OPTIONS.

PLEASE GIVE OUR CHILDREN AND GRANDCHILDREN A CHANCE TO GROW UP IN A HAPPY AND HEALTHY ENVIRONMENT.

HELP US BRING BACK THE SHORTFINNED PILOT WHALE, SEI WHALE, PYGMY SPERM WHALE, NORTH PACIFIC RIGHT WHALE, MINKE WHATEL, GUADALUPE FUR SEAL, STELLER SEA LION AND THE SOUTHERN SEA OTTER....ALL HAVE BEEN SIGHTED IN THE AREA, BUT P317-1

Sections 4.6.4 and 4.18.4 discuss the Project's potential impacts on air and water quality. Sections 4.7.4 and 4.8.4 discuss the Project's potential effects on the marine and terrestrial environments.

P317-2

The Applicant is required to adhere to all applicable Federal, State, and local laws, regulations, and permit requirements in the execution of all phases of the Project. Section 4.2.6 states, "The environmental and occupational safety record for the Applicant's worldwide operations, including, for example, mining ventures overseas, was not considered in evaluating potential public safety concerns associated with this Project because such operations are not directly comparable to the processes in the proposed Project." The conclusions in the EIS/EIR are based on the analyses of potential environmental impacts of the proposed Project and the implementation assumptions stated in Section 4.1.7. However, the Applicant's safety and environmental record will be taken into account by decision-makers when they consider the proposed Project.

P317-3

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P317-4

Section 4.7.1.5 discusses marine mammals that occur in the Project area, Impacts BioMar-4, BioMar-5, BioMar-8, BioMar-9, and BioMar-10 in Section 4.7.4 discuss the Project's potential effects on marine mammals.

P317-4

BECAUSE OF THEIR SCARCITY, NONE WILL APPEAR AT OR NEAR THE LNG PROJECT SITE.

THESE SPECIES ONCE COMMON ALONG OUR COASTLINE, ARE NO MORE. I BELIEVE WE COULD BRING THEM BACK IF WE WERE TO MAKE THEIR WATER WORLD MORE INHABITABLE. THEY ARE OUT THERE, I HAVE PERSONALLY SEEN THEM.

WE HUMANS HAVE PLAYED A MAJOR ROLE IN DRIVING THESE SPECIES TO NEAR EXTINCTION. WE COULD HELP THEM POSSIBLY THRIVE AGAIN...

WOULDN'T YOU WANT THAT FOR THE FUTURE???????

A LIQUEFIED NATURAL GAS FACTORY OFF LEO CARRILLO WOULD MAKE THESE WATERS UNSAFE FOR MARINE LIFE...LIGHTS, NOISE. ADDED POLLUTION AND THE SUCKING UP OF LIVING SEA WATER FOR BALLAST AND COOLING WOULD SEND THESE MARINE ANIMALS AWAY OR KILL THEM RIGHT ON THE SPOT ...

AND FOR WHAT/?????TO CONTINUE OUR DEPENDENCY ON AN UNSUSTAINABLE AND "DIRTY" FUEL FROM ANOTHER COUNTRY WHEN WE HAVE AN ABUNDANCE OF WIND, WATER, SUN, AND CONTRACEPTIVES""

PLEASE SAVE THIS BEAUTIFUL COASTLINE FOR US AND THE GENERATIONS TO FOLLOW...

THANK YOU,

Vellewo Walsh THE GODMOTHER OF MALIBU

20532 PACIFIC COAST HIGHWAY, MALIBU, CALIFORNIA 90265

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### P317-4 Continued

#### P317-4 Continued

### P317-5

Section 4.7.4 discusses the Project's potential effects on marine life with respect to lights, noise, pollution, and ballast water. Section 4.7.4 also discusses uptake volumes and potential impacts of seawater uptake and discharge, including those on ichthyoplankton from intake of seawater, and those on water quality and the marine environment from thermal discharges of cooling water. The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. A closed loop tempered water system would replace the seawater cooling system. Section 2.2.2.4 contains a description of the proposed water uptakes and water uses for the FSRU.

P317-5

#### P317-6

Sections 1.2.2, 1.2.3, 1.2.4, 3.3.2, and 4.10.1.3 contain information on this topic.

P317-6

Sections 3.3.1 and 3.3.2 address conservation and renewable energy sources, within the context of the California Energy Commission's 2005 Integrated Energy Report and other State and Federal energy reports, as alternatives to replace additional supplies of natural gas.

P317-7

## P317-7

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P438

April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc.) which is in the same shipping channel where 10,000, container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

MIKEL ROBERTS
21251 PCH
MALIBU, CA 90265

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

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April 19, 2006

Dwight Sanders
State lands commission,
100 Howe Avenue
Suite 100 South
Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000. container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely

TREVOR H. ROBISON

Jum Flan 3436 COAST VIEW DR

MALIBU, CA, 90265

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."



May 9, 2006

#### Letter sent via email: BHPRevisedDEIR@slc.ca.gov

Mr. Dwight Sanders California State Lands Commission Div. of Environmental Planning & Management 100 Howe Ave, Suite 100-South Sacramento. CA 95825

Reference: Cabrillo Port Project

Clearinghouse number 2004021107

Letter of Support

Dear Mr. Sanders:

My name is Ted Roche and I am President of Divecon Services LP located in Oxnard, CA. We provide Marine Construction, Commercial Diving, ROV and Vessel Services to numerous customers in our area. We commonly provide these services to the oil and gas sector offshore California as well as the Gulf of Mexico. Over the years many of our projects have been scrutinized by your agency.

I am writing to support the above referenced project. We make our living working in the ocean and are diligent watch keepers of our offshore waters. I am also an avid surfer and very concerned about water quality.

The Cabrillo Port project features a "closed loop" system which uses the natural gas onboard the ships to warm the gas and transfer it to shore via undersea lines. Other schemes would use an "open" system including sea water heated and released; discharging cooler water back into the ocean and a great deal more air pollution.

Cabrillo Port will further reduce air pollution in Ventura County by converting trash hauling trucks to low emission LNG power, similar to those used now by UCLA, LAX and Santa Monica for their buses. LNG is being used by LA County to reduce air pollution. We need to use that technology here in Ventura County.

Air quality will continue to improve as California converts to alternative fuels like natural gas and more wind and solar come online in the coming decades. For now, we need innovative and environmentally sensitive projects like Cabrillo Port to bring us natural gas as efficiently and cleanly as possible.

Divecon routinely inspects all of the subsea pipelines located offshore California with our Remote Operated Vehicle (ROV) in accordance with the mandated inspection criteria set forth by the MMS. This project would provide us with additional pipelines for inspection and would create an economic benefit to our company as well as our local employee base.

2006/P055

#### P055-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

#### P055-2

P055-1

P055-2

Section 2.2.2.3 discusses the regasification process. Section 4.6.4 discusses the Project's potential impacts to air quality and the mitigation measures that would be used to prevent or minimize impacts.



We encourage you to approve of the EIR and recommend that the Cabrillo Port Project is approved. If you have any questions or require further clarification about our position you may contact me directly at (805) 488-6428.

Sincerely, DIVECON SERVICES LP

Ted Roche

Ted Roche President From: Rachel Roderick - Jones [rachelrj@mindspring.com]

Sent: Friday, May 12, 2006 6:54 PM To: BHPRevisedDEIR@slc.ca.gov

Subject: LNG NO NO NO

#### To Whom This Concerns

My husband and I attended the public meeting at Malibu High School last month and wish to voice our strong opposition to this LNG project. We listened to the many voices that gave their opinion on this project both for and against and we heard nothing that would incline us to favor this project. It is a huge step backward for water and air quality, discharging approx 300 tons of smog producing hydrocarbons and nitrous oxides amongst other noxious pollutants into the atmosphere. This is outrageous, we are absolutely appalled that the Governor is even considering this assault.

Many industries are being forced to abide by EPA standards and clean up their act after decades of dirty business, we do not need this dangerous and polluting hazard off our coast, now or ever. More effort should be made to fund alternative energy sources that are non polluting eg Ethanol from sugar cane . The benefits to a few businesses does NOT outweigh the many and varied risks. Kick this LNG project OUT

Yours sincerely Alan and Rachel Roderick-Jones

#### P093-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

#### P093-2

P093-1

Sections 4.6 and 4.18 discuss these topics.

#### P093-3

P093-2 The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised

P093-4 impacts and mitigation measures.

#### P093-4

Sections 1.2.2, 1.2.3, 1.2.4, 3.3.1, 3.3.2, and 4.10.1.3 contain information on the need for natural gas, the role and status of energy conservation and renewable energy sources, and the California Energy Action Plan.



April 28, 2006

Mr. Dwight E. Sanders California State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, California 95825-8202

#### RE: Cabrillo Port - State Clearinghouse Number 2004021107

The California Hispanic Chambers of Commerce, which represents the interests of over 600,000 Hispanic businesses throughout the State of California, is pleased to express its strong support to the California State Lands Commission regarding BHP Billiton's Cabrillo Port project. We believe the March 2006 Revised Draft Environmental Impact Report ("Revised Draft EIR") is a fair and comprehensive analysis and ask that the California State Lands Commission approve the regulatory permit necessary for Cabrillo Port to move forward.

BHP Billiton is proposing to construct and operate Cabrillo Port, a state-of-the-art liquefied natural gas import and regasification facility to be located 14 miles offshore of Ventura County. Once in operation, Cabrillo Port is expected to meet more than 10 percent of California's average daily natural gas needs.

The California Hispanic Chambers of Commerce supports Cabrillo Port for various reasons namely:

- Cabrillo Port will ensure a stable and reliable energy source to help meet the growing needs of more than 600,000 Hispanic-owned businesses throughout California. California is dependent on a growing vendor, employee and business base that is Hispanic as we are viewed as California's economic future. We want to ensure that the 600,000 Latino-owned businesses for which we advocate for can manage their energy costs in order to promote overall economic development and growth throughout our state. California's energy crisis of 2000-2001 demonstrated the vulnerability of the state's energy market to natural gas supply shortages - that memory does not fade quickly in the minds of many of our members. The 2005 Integrated Energy Policy Report, approved by the California Public Utilities Commission and the California Energy Commission, which guides these two state agencies on energy policy, found that California "imports 87 percent of its natural gas supplies, which are increasingly threatened by declining production in most U.S. supply basins and growing demand in neighboring states." Furthermore, the report states that a potential new supply source such as LNG "could have a dramatic effect on the market prices in California" and save Californians "over \$1 billion annually on their natural gas bills" if "West Coast LNG supplies cause market prices to drop by \$0.50 per mmBtu." Despite aggressive energy conservation and efficiency measures, the demand for natural gas is imminent and will continue to rise substantially throughout California in the coming decade and beyond.
- Cabrillo Port will be located away from heavily populated areas and 14 miles offshore, emphasizing the strongest commitment to public safety and national security possible. We commend your decision to commission Sandia National Laboratories, the nation's leading government expert on national security, energy and the environment, to conduct an independent risk and public safety assessment on Cabrillo Port as contained in the Revised Draft EIR. Even with Sandia's finding of an extremely unlikely worst case scenario of a 7-mile vapor cloud around the facility, this incident should have no effect on land. We believe the research and data presented by Sandia in the Revised Draft EIR satisfactorily addresses any remaining issues of public safety and national security regarding Cabrillo Port. Furthermore, under the Maritime Security Act, Cabrillo Port will be required to have a comprehensive security plan approved by the U.S. Coast Guard and U.S. Department of Homeland Security before it can even begin construction.

G216-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

G216-2

Section 1.2.3 contains updated information on natural gas needs in California. Forecast information has been obtained from the California Energy Commission.

G216-3

Section 4.2 and Appendix C contain information on public safety.

G216-2

G216-1

G216-3

770 L Street, Suite 900, Sacramento, CA 95814 • www.cahcc.com • Tel: 916.444.2221 • Fax: 916.669.2870

- BHP Billiton will construct Cabrillo Port to ensure it has the least possible environmental impact on our sea, land and air. Cabrillo Port will be a state-of-the-art facility using the best available and proven technologies today. BHP Billiton will use closed-loop regasification rather than an open-loop system on Cabrillo Port, thereby having no adverse impact on marine life and seawater around the facility. Given its offshore, temporary location, Cabrillo Port will be located outside international shipping lanes and miles from the Channel Islands Marine Sanctuary. As outlined in the Revised Draft EIR, the facility as well as support vessels will all run on natural gas instead of diesel. The gas supply will come from Western Australia, deemed one of the cleanest sources of gas in the world and from a stable political ally. These measures, among many others, serve as strong examples of BHP Billiton's strong commitment to the environment.
- Cabrillo Port will contribute to the local community and state economy as a responsible corporate citizen and partner. As the largest diversified natural resources company in the world, BHP Billiton has a strong track record of managing dozens of its operations throughout the world and serving as a responsible corporate citizen in the local communities where it is located. During construction, this project will create more than 200 high-paying jobs as well as more than 100 permanent jobs for Oxnard and Ventura County. We feel these jobs will be a net benefit to the state's economy. During operation, many local Hispanic-owned vendors will have the opportunity to maintain the facility throughout the life of the project. It is important to know that all costs to construct Cabrillo Port will be borne solely by BHP Billiton. California taxpayers and ratepayers will not be burdened with additional costs as no tax dollars or subsidies will go towards the construction, operations and maintenance of this facility.
- Cabrillo Port will provide an abundant and cleanest-burning fossil fuel today as it will serve as a bridge to an eventual future fueled by renewable energy. We recognize the strong value of liquefied natural gas as a substitute for more environmentally damaging fossil fuels as natural gas produces less emissions and pollutants than either coal or oil. Natural gas is also a relatively clean alternative fuel for vehicles and can be used to harness the energy of hydrogen fuel cells for transportation purposes. Although we support an eventual future fueled by renewable energy, simply this cannot be done overnight. Cabrillo Port and the clean-burning natural gas it will offer will not be competitors of renewable energy but rather essential partners to ensure our future can be powered by renewable energy.

Furthermore, Cabrillo Port does not require any extensive onshore facilities to be constructed in order to operate. It will be a temporary facility with a stable, continuous and dependable natural gas supply, unlike other mechanisms that cannot offer that long-term reliability to meet market demand. Out of all currently proposed LNG import facilities for California, Cabrillo Port is the right project, in the right place, at the right time.

It is for these reasons that the California Hispanic Chambers of Commerce strongly supports BHP Billiton's Cabrillo Port. We are proud to join the California Black Chamber of Commerce, Ventura County Economic Development Association, Oxnard Chamber of Commerce and the Tri-Counties Building and Construction Trades Council, among many others, in supporting Cabrillo Port and ask that the California State Lands Commission approve its permit application expeditiously.

Please do not hesitate to contact me if you have any questions. I can be reached at (916) 444-2221. Thank you very much for your consideration.

President & (

cc: State Controller Steve Westly, Chair, California State Lands Commission Lt. Governor Cruz Bustamante, Member, California State Lands Commission Finance Director Michael Genest, Member, California State Lands Commission Paul Thayer, Executive Director, California State Lands Commission Henry Mendoza, Chairman, California Hispanic Chambers of Commerce 2006/G216

G216-4 G216-4

Sections 2.2.2.3 and 3.3.9.1 discuss this topic.

G216-5

Section 4.16.4 contains information on potential socioeconomic impacts and mitigation measures to address such impacts.

G216-5

April 16, 2006

My name is Gloria E. Roman, I live at 250 E. Pleasant Vly Rd. Oxnard Ca. 93033

REF: Docket # USCG-2004-16877

2.5.1 Floating Storage and Regasification Unit
Potential fabrication yards for the FSRU are in Japan, Korea, Spain, and
Finland.

In the EIR and EIS page 1-12 section 1.2.4 lines 26-29: In light of the EIA's projections, natural gas imports are necessary to ensure a reliable alternative energy source that enhances the nation's diversity of energy supplies and energy sufficiency and supports a thriving United States economy.

In lite of this there is a highly possibility of either by sabotage, hijacking, anyone of the tankers, pipeline, or breaching the security of the FSRU, floating receiving terminal or blowing up the 36" 1100 PSI pipeline that runs through our community.

With modern technology, electronic devices can be planted in any part of the system that can in the future be use to damage, destroy any part or, all of the system, damaging our economic.

I reference, memoirs of Mr. Thomas Reed who served in the National Security Council of President Reagan's administration and that authorized the CIA to slipped some flawed software into the Soviet's Sivering gas pipeline system that was to run pumps, turbins, valves and was program to go haywire, after a decent interval, to reset pumps speed, and valves setting to produce pressures far beyond those acceptable to pipeline joints and welds.

The result, was the most monumental none nuclear explosion and fire ever seen from space and that the United States satellites pickup, the blast accrued in the summer of 1982.

How will this be prevented?

Again I repeat that there is a real possibility that this can be repeated on this project and can finish damaging our already weak economy.

This report was, at one time classified material, but became available in recent years.

Gloria E. Roman

P354-1

Thank you for the information.

P354-2

Table 4.2-2 and Sections 4.2.6.1 and 4.2.7.6 contain information on the threat of terrorist attacks. Section 4.2.7.6 and the Independent Risk Assessment (Appendix C1) contain information on public safety impacts from various incidents at the FSRU. The analysis indicates that the maximum impact distance of an accident or intentional incident would involve a vapor cloud dispersion extending 6.3 nautical miles (7.3 miles) from the FSRU. The FSRU would be located approximately 12.01 nautical miles (13.83 miles) offshore; therefore, consequences of an accident or intentional incident involving LNG transport by carrier and storage on the FSRU would extend no closer than 5.7 nautical miles (6.5 miles) from the shoreline.

P354-3

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P354-2

P354-1

P354-3

From: sromera@charter.net

Sent: Thursday, April 13, 2006 5:34 PM

To: BHPRevisedDEIR@slc.ca.gov

Subject: LNG CANNOT be built on our coastline.

Dwight Sanders State Lands Commission 100 Howe Ave, Suite 100-South Sacramento, CA 95825

Dear Dwight Sanders:

The Cabrillo Port Liquefied Natural Gas terminal CANNOT be built on California's Coastline. This project is putting California's most precious resource in jeopardy - its beautiful coastline. LNG is not a safe source of energy. The Cabrillo Port LNG project puts the lives of citizens of Malibu, Oxnard, Camarillo and even inland cities in danger. Citizens of California will be put in danger from gas explosions, fires, air and environmental contaminations. This project will also create a prime target for terrorists.

Another reason that this project is bad for California (and the rest of the nation) is that additional sources of natural gas are not currently needed and will not be needed in the foreseeable future. If this project is not stopped Natural Gas prices will surely increase for California consumers because of the huge expense involved with building LNG facilities and the extra processing involved with Liquefied Natural Gas. I urge you to protect the people of California from being swindled by the energy industry - please do everything in your power to stop the creation of LNG terminals on our coastline.

You can find more information about the Cabrillo Port LNG terminal at the following website:

http://www.edcnet.org/ProgramsPages/LNG.htm

and

http://www.edcnet.org/

Thank you in advance for taking action AGAINST the Cabrillo Port LNG project.

Sincerely,

Seth Romera

Santa Barbara resident. sromera@charter.net

V010-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

V010-2

Sections 4.7.4 and 4.8.4 discuss the Project's potential impacts on the marine and terrestrial environments.

V010-3

V010-1

V010-2

V010-3

V010-4

V010-5

V010-6

Section 4.2.7.6 and the Independent Risk Assessment (Appendix C1) contain information on public safety impacts from various incidents at the FSRU. The analysis indicates that the maximum impact distance of an accident would involve a vapor cloud dispersion extending 6.3 nautical miles (7.3 miles) from the FSRU. The FSRU would be located approximately 12.01 nautical miles (13.83 miles) offshore; therefore, consequences of an accident involving LNG transport by carrier and storage on the FSRU would extend no closer than 5.7 nautical distance (6.5 miles) from the shoreline.

Section 4.2.8 contains information on safety requirements for pipelines. Section 4.2.8.4 discusses the estimated risk of Project pipeline incidents.

V010-4

Table 4.2-2 and Sections 4.2.6.1 and 4.2.7.6 contain information on the threat of terrorist attacks.

V010-5

Sections 1.2.2 and 1.2.3 contain updated information on natural gas needs in the U.S. and California. Forecast information has been obtained from the U.S. Department of Energy's Energy Information Agency and from the California Energy Commission.

V010-6

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

# **Comment Form/Formulario Para Comentarios**

Cabrillo Port LNG Deepwater Port—Revised Draft EIR
Puerto de Aguas Profundas de LNG en el Puerto de Cabrillo—Borrador Revisado del EIR

To receive a copy of the Final EIS/EIR, you must provide your name and address.
Para recibir una copia del EISÆIR Final <sub>l</sub> por favor proporcionar su nombre y dirección.
Name (Nombre): Deby Rondell
Organization/Agency (Organizatión/Agencia):
Street Address (Calle): 29500 Heather Cliff Rd #229
Street Address (Calle): 200 Hear Clift Ad The
City (Ciudad):
State (Estado): Zip Code (Código Postal): 90265
email address (dirección de correo electrónico):

Please provide written comments on the reverse and drop this form into the comment box.

Proporcione por favor los comentarios escrito en el revés y colóque esta forma en la caja del comentario.

You may also address any written comments to the attention of:

Dwight E. Sanders

California State Lands Commission
Division of Environmental Planning and
Management
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Include the State Clearinghouse number:
2004021107

Comments may also be submitted via email to: BHPRevisedDEIR@sic.ca.gov

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**Dwight E. Sanders** 

California State Lands Commission
Division of Environmental Planning and
Management
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Incluir el número de State Clearinghouse:
2004021107

Los comentarios también se pueden enviar por correo electrónico a: BHPRevisedDEIR@slc.ca.gov

# All comments must be received by 5 p.m. Pacific Time, May 12, 2006

# Todos los comentarios debe ser recibido por 5 de la tarde, hora Pacífico, el 12 de mayo de 2006

	nts/Comentarios (Use additional sheets if necessary/Puede utilizar licionales si es necesario):
T	am OpposED to this
L	Na project that would
Po	llute and endanger our
a	oastline,
1	Please keep Malibu safe & natura
No se	No action will be taken until the environmental review process is completed.  10.17 Hd 8-14H 9000  10.15 Hd 10.

2006/P313

P313-1

P313-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

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- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
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There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely,



Mr. John Rosenberg 5961 Paseo Canyon Dr Malibu, CA 90265

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

Murray Rosenbluth 2591 Northstar Cove Port Hueneme CA 93041 (805) 985-7588 mrosenbluth@earthlink.net

April 7, 2006

Mr. Dwight Sanders State Lands Commission 100 Howe Ave, Suite 100-South

Dear Mr. Sanders,

Sacramento, CA 95825

RE: Cabrillo Port Revised Environmental Impact Report

I am a Port Hueneme City Council Member, Mayor in 2000 and 2005. However I am not a professional politician, I am a registered Professional Engineer. This testimony is presented as an individual citizen and ratepayer not as an elected official.

I support all of the testimony regarding environmental, safety, security, and related issues.

However there is an additional issue that had not as yet been adequately discussed.

My concern goes well beyond what might incorrectly be perceived that the only opposition issue is NIMBY (Not In My Backyard) that LNG is needed but the terminal should not be here. Not so!

Is the BHP Billiton proposal superior to the <u>No Project</u> option, an analysis that is required for EIR's? No. it is not.

I submit that the BHP Billiton proposal fails that test because no imported LNG is needed anywhere on the West Coast of the USA.

The EIR asserts in Section 3.4.1, "Under the no-action alternative, the demand for natural gas in Southern California would not be satisfied by the project and would have to be met by other options." The California Energy Commission (CEC), Section 1.2.2.2, bases the increase in demand on an estimate of future demand growth.

The EIR does not consider that domestic energy supply will match that demand. The Federal DOE Energy Information Administration estimates that domestic natural gas production will increase approximately 20% in the next 20 years in response to predicted increase in domestic gas demand.

The best and indeed only way to resolve the truth of these issues is for the California Public Utilities Commission (CPUC) to hold public evidentiary hearings under oath. There is a lawsuit pending for the CPUC to hold these hearings.

The issue is the negative impact on personal and national economics – *Unneeded* foreign imported LNG will force us to pay more to cook and to stay warm. These *unnecessary* extra payments will go to foreign countries for imported LNG. This will hurt you and your family and also hurt the United States because it will aggravate our country's present critical <u>Balance of Payments</u> problem.

P003-1

Section 6.2 addresses NEPA/CEQA requirements for consideration of the No Action Alternative. As stated, Section 1512.6(e)(2) of the State CEQA Guidelines provides in part, "If the environmentally superior alternative is the 'no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." The selection of the No Action Alternative by decision-makers, for which they have full discretion, would not fulfill the purpose and need of the Project to supply natural gas to California consumers but would maintain, for an indeterminate time, the status quo of California's and the nation's existing and projected energy supply mix, including conservation and renewable energy sources.

P003-2

Sections 1.2.2 and 1.2.3 contain updated information on natural gas needs in the U.S. and California. Forecast information has been obtained from the U.S. Department of Energy's Energy Information Agency and from the California Energy Commission.

P003-3

Section 1.2.1 contains information on the USCG and State formal hearings.

Following publication of this Final EIS/EIR, MARAD, the USCG, and the CSLC will serve public notice and hold final hearings. MARAD and the USCG will hold a final DWPA license hearing in accordance with 33 CFR 148.222. After the final license hearing is concluded by MARAD and the USCG, the Commandant (CG-3PSO), in coordination with the Administrator of MARAD, will consider any requests for a formal hearing as specified in 33 CFR 148.228. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease.

As discussed in Section 1.2.1, the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) must "carry out their respective energy-related duties and responsibilities based upon information and analyses contained in a biennial integrated energy policy report adopted by the CEC." Section 1.2.1 also describes the public process that is used to develop the Integrated Energy Policy Reports to ensure that California's energy-related interests and needs are met.

Section 1.5 contains information on opportunities for public comment. After the MARAD final license hearing, the public will have 45 days to comment on the Final EIS/EIR and the license application. The Federal and State agencies will have an additional

P003-3

P003-1

P003-2

P003-4



45 days to provide comments to the MARAD Administrator. The Administrator must issue the Record of Decision within 90 days after the final license hearing. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease. The California Coastal Commission will also hold a hearing. Comments received will be evaluated before any final decision is made regarding the proposed Project.

# P003-4

Section 1.2 discusses dependence on foreign energy sources.

It is therefore prudent and the correct business decision to defer final decision on the project until the results of the PUC public evidentiary hearings are published.

Murray Rosenbluth, P.E. Master of Science in Chemical Engineering

c: Honorable Arnold Schwarzenegger

P003-5

P003-5

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P305-1

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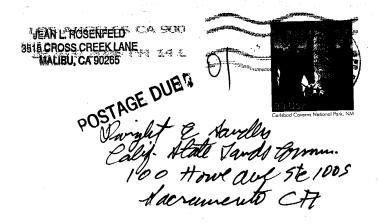
P305-2

Section 4.2 and Appendix C contain additional and revised information on this topic. Sections 4.6.4 and 4.18.4 discuss the Project's potential impacts on air and water quality, respectively.

Very mr. Nowders:
The proposed LNG project off
the court is a bad idea in

P305-1

P305-2



o:USPS 2002 ♠ recycled

Miladdaladdddaladddanddladddaladda

P460

April 19, 2006

Dwight Sanders State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

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Cimarent

SILVIA I. ROSENTHAL
1918 Antington Lane #D
REDONDO BEACH, CA. 90218

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

# **Comment Form/Formulario Para Comentarios**

Cabrillo Port LNG Deepwater Port—Revised Draft EIR
Puerto de Aguas Profundas de LNG en el Puerto de Cabrillo—Borrador Revisado del EIR

To receive a copy of the Final EIS/EIR, you must provide your name and address.
Para recibir una copia del EIS/EIR Final, por favor proporcionar su nombre y dirección.
Name (Nombre): OSCar F. Roth child
Organization/Agency (Organizatión/Agencia): Phy St Ctan
Street Address (Calle): +30 Ning Drive
City (Ciudad): Oxnavd
State (Estado): Zip Code (Código Postal):
email address (dirección de correo electrónico):

Please provide written comments on the reverse and drop this form into the comment box.

Proporcione por favor los comentarios escrito en el revés y colóque esta forma en la caja del comentario.

You may also address any written comments to the attention of:

Dwight E. Sanders

California State Lands Commission
Division of Environmental Planning and
Management
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Include the State Clearinghouse number:
2004021107

Comments may also be submitted via email to: BHPRevisedDEIR@slc.ca.gov

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# All comments must be received by 5 p.m. Pacific Time, May 12, 2006

# Todos los comentarios debe ser recibido por 5 de la tarde, hora Pacífico, el 12 de mayo de 2006

Comments/Comentarios (Use additional sheets if necessary/Puede utilizar hojas adicionales si es necesario):
I spent much of my work as
a physician treating asthmain
· IA
Asshny incidence is highest
among Hispanics
The last thing up need is
another source of air polly doin in
Oxnard, where the Hupanic population
is so large.
0
It you could see as Implies
Charle for a breat of air, you
would never allow LNG in this great
No action will be taken until the environmental review process is completed.
No se tomará ninguna acción hasta que el proceso de revisión ambiental se haya terminado.

## P346-1

Thank you for the information.

## P346-2

P346-3

The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures.

P346-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P346-2

P346-3



May 5, 2006

Mr. Dwight E. Sanders California State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, CA 95825

Re: Cabrillo Port: 2004021107

Dear Mr. Sanders:

Clean Affordable Safe Energy (Cal-CASE) is a coalition of 80 member organizations including representatives across the business spectrum as well as associations representing taxpayers, education, consumers, agriculture, local government and seniors. We support the importation of liquefied natural gas (LNG) to serve California's growing demand for natural gas.

California is the 10th largest consumer of natural gas in the world, yet we produce only 13 percent of what we use. A large portion of that natural gas is used to fire generating plants that are producing 40 percent of the state¹s electricity. That means any hiccup in our supply system can raise prices and threaten electric system reliability.

California and other states have experienced skyrocketing natural gas and electricity costs due to supply interruptions and forecasts of continued supply constraints. Part of the answer is to increase our energy supply through LNG. By taking advantage of a large global supply of LNG, California can avoid gyrating prices and give businesses and consumers a more stable energy market.

LNG has been used safely around the world for more than four decades. Terminal applications to import LNG into California are being subjected to extensive permitting processes to ensure public safety and environmental protection. We urge your support of LNG.

Thank you for considering our views.

Sincerely yours,

Dorothy Rothrock

Chair Cal-CASE 2006/G003

G003-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

G003-2

Sections 1.2.2 and 1.2.3 contain updated information on natural gas needs in the U.S. and California. Forecast information has been obtained from the U.S. Department of Energy's Energy Information Agency and from the California Energy Commission.

G003-1

G003-2

Cal-CASE • Californians for Clean Affordable Safe Energy 11300 W Olympic Blvd., Suite 840 • Los Angeles, CA 90064 (310) 996-2671 • www.casefornaturalgas.org April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000, container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Tima Reffmant Tonia Rottmann 37240 Dalzell St. Palmdale CA 93550

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

LNG testimony Oxnard, April 19, 2006

My name is Jean Rountree, 215 Ocean Drive, Oxnard.

I speak tonight on behalf of the Beacon Foundation, as a member of the Statewide Working Group for LNG, and as a member of The Saviers Road Design Team.

I will be speaking of the effect of air quality (4.6-1 through 4.6-45) on Evironmental Justice (4.19-1 through 4.19-23)

BHP Billiton has chosen to bring this Liquified Natural Gas program into the Oxnard community, where 66.2 % of the population is Hispanic/ Latino and 15.1 % of the population is below the poverty level, almost twice that of the rest of Ventura County.

BHP Billiton's corporate actions affecting lower income ethnic groups around the world show a preference for destructive environmental projects in communities where they expect to encounter the least resistance and where their corporate money speaks the loudest.

I will point to only three of many instances where this corporation has avoided law and wrecked havoc on the people and their environment.

1. Billiton's PR spin claims widespread community support for their Mining operation in the Philipines at Puhada Bay. The truth is that 2 of 3 local governments oppose their intrusion into protected areas G205-1

Sections 4.19.1 and 4.19.4 contain information on potential Project impacts on minority and low-income communities and mitigation measures to address such impacts.

G205-2

The Applicant is required to adhere to all applicable Federal, State, and local laws, regulations, and permit requirements in the execution of all phases of the Project. Section 4.2.6 states, "The environmental and occupational safety record for the Applicant's worldwide operations, including, for example, mining ventures overseas, was not considered in evaluating potential public safety concerns associated with this Project because such operations are not directly comparable to the processes in the proposed Project." The conclusions in the EIS/EIR are based on the analyses of potential environmental impacts of the proposed Project and the implementation assumptions stated in Section 4.1.7. However, the Applicant's safety and environmental record will be taken into account by decision-makers when they consider the proposed Project.

G205-2

G205-1

- and endangered species habitat and that over 800 residents signed a petition demanding Billiton pull out their operations.
- In Columbia families evicted from their homes for a Billiton
   Mine expansion at El Cerrijon are still homeless after more than 5
   Years.
- 3. In Papua New Guinea Billiton dumped mining waste into the Ok Tedi and Fly rivers causing 500 kilometres of forest die back and predictions of acid rock drainage likely to cause life threatening food and water shortages for villages downstream and leave the rivers dead for 2 to 300 years. Then they sold off their 52% of the company to a Singapore Company, leaving insufficient funds to address the long lasting damage they have done.

(Source: The Austrailian Conservation Foundation and Mines and and Communities Website, Mineral Policy Institute Media release, Nov. 25, 2005)

And what will happen in Oxnard???

Even if a fireball from an explosion off our coast might not reach

Oxnard residents, (unless the huge high pressure Pipes running
through their community should leak, which has happened before.)

Even so, this lower income ethnic community of Oxnard will be the

### 2006/G205

# G205-2 Continued

#### G205-2 Continued

#### G205-3

Section 4.2.8 addresses safety issues related to natural gas pipelines. Section 4.2.8.4 contains information on the estimated risk of Project pipeline incidents.

The proposed pipelines within Oxnard city limits would meet standards that are more stringent than those of existing pipelines because they would meet the minimum design criteria for a USDOT Class 3 location. Also, MM PS-4c includes the installation of additional mainline valves equipped with either remote valve controls or automatic line break controls. SoCalGas operates high-pressure natural gas pipelines throughout Southern California.

G205-3

#### Victim.

Day after day they will breathe the air already unsafe, made more toxic by the Three diesel engined ships docking every week at the floating platform, and by the operation of the platform itself turning the liquid back into gas.

In Oxnard as in the Phillipines and elsewhere, Billiton Claims "widespread community support".

Not in the "unbought" community of Oxnard whose low

income families will suffer most in this untried, unsafe

scheme that places risk in Oxnard and profit in Austrailia.

2006/G205

## G205-4

G205-4

The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures.

#### G205-5

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

G205-5

# **Gas Fire** Wouldn't Reach **Shore**

Still, study finds an explosion at a proposed natural gas terminal off the Ventura County coast would extend farther than thought.

By GARY POLAKOVIC

A catastrophic release of liquefied natural gas from a terminal proposed off the Ventura County coast could spread a powerful and spectacular fireball over several miles, but pose no threat on land because the facility would be at least 14 miles offshore, a new study shows.

The gas-processing plant, one of four proposed for Southern California, would convert fuel shipped from across the Pacific Ocean for use in Los Angelesarea factories and power plants. Such terminals operate around the world with a good safety record, yet the newly released analysis shows that the effect of a worst-case disaster would be significantly greater than identified when the project, called Cabrillo Port, was proposed nearly three years ago.

Critics, including local officials and conservationists, said safety and environmental concerns would only prompt more opposition to the project. But BHP Billiton, the Australian energy company proposing it, said the floating facility can be safely managed.

"We take safety very seriously," said company spokeswoman Kathi Hann. "It's one of the reasons we decided to put Cabrillo Port as far offshore as it

A sudden release of up to 200,000 cubic meters of fuel from two of three tanks of liquefied natural gas at a terminal moored between Malibu and Port Hueneme would result in a fast-moving airborne vapor eruption [See Gas, Page B4]

# **Natural Gas Fireball Would** Not Reach Land, Study Says

[Gas, from Page B1] spanning up to 6.3 miles - four Opponents said the new times farther than originally study has problems. City counthought, according to a revised cils in Oxnard and Malibu are aldraft environmental impact state- ready on record opposing the

would cease about 5.7 miles from said he would ask the City Counland, could disrupt shipping in the cil next month to appropriate at Santa Barbara Channel and affect least \$50,000 to help pay the legal

Such an event is considered to defeat the project. highly unlikely, yet the potential "The residents of Malibu for terrorist attacks, sabotage, should not be guinea pigs to shipping collisions or industrial some experimental project," upsets has led to increased scru- Stern said. "My main priority is tiny of security and safety mea- to fight this facility." sures for liquefied natural gas ter- Some have said that natural minals proposed along the gas is the cleanest fossil fuel California coast.

is in an early stage of development, California. included, such as firefighting con- coast, however, oppose the faciltingencies and establishing barriity, saying it would emit too ers between gas storage tanks and much air pollution. processing equipment.

Those recommendations and rection," said Linda Krop, an atother details are contained in the torney for the Santa Barbaradraft impact statement and risk based Environmental Defense assessment prepared for the U.S. Center. "Instead, we should be Coast Guard and the California pursuing clean alternatives, like State Lands Commission. Public energy conservation, clean enhearings on the document are ergy and renewable [power]." scheduled for 6:30 p.m. today at Mike Villegas, executive offi-Malibu High School and for 1 p.m. cer for the Ventura County Air and 6:30 p.m. Wednesday at the Pollution Control District, said Oxnard Performing Arts and Con- the district is working with BHP vention Center.

project consists of three major tion from the Port of Hueneme components: a floating processing or from idling ships to offset the terminal the size of three football emissions from the liquefied fields, underwater pipelines to the natural gas operation. Reliant Energy Co. power generating station in Oxnard, and addi-sures] and best available control tional pipelines near Camarillo technology, the air pollution conand in Santa Clarita. Liquefied cerns can be addressed," Villegas natural gas is super-chilled for said. ocean transport, then reconverted Other LNG projects have to vapor to heat homes, manufac- been proposed in Long Beach ture products and generate elec- and off the coast of Oxnard and

Hann said the U.S. Depart- Commission estimates that the ment of Homeland Security also state demand for natural gas will required BHP to prepare a secu-steadily grow over the next 10 rity plan. The company proposes a years, requiring an additional 1,640-foot security zone around 200 billion cubic feet of the fossil the terminal and two tugboats to fuel by 2013.

patrol surrounding waters.

project.

The "vapor cloud fire," which Malibu Mayor Andy Stern ships and recreational boaters. costs for organizations working

available and an important one Since the Cabrillo Port project for industry in smoggy Southern

"This is a step in the wrong di-

and the U.S. Environmental Pro-The proposed \$500-million tection Agency to reduce pollu-

"With the mitigation [mea-

Malibu. The California Energy

From: Rowland. Nancy (DGS) [rowlandn@SacCounty.NET]

**Sent:** Tuesday, May 09, 2006 12:51 PM **To:** BHPREVISEDDEIR@SLC.CA.GOV

Subject: LNG

#### **Dear Commission Members:**

Please deny the BHP Billiton LNG offshore project. Our Callifornia coast and people must be protected from further development and pollution. I work at a county site that has an LNG station for our trucks. Our trucks, the delivery trucks, and the station are constantly venting the LNG into the air when the pressure is too high. It must be thousands of gallons lost, yet this is bound to be a small amount compared to the size of the tankers and terminal that is proposed. Southern California does not need more air pollution.

Thank you, Nancy Rowland (916) 338-0644

COUNTY OF SACRAMENTO EMAIL DISCLAIMER:

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If you are not the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments thereto.

### 2006/P053

## P053-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

#### P053-2

P053-1

P053-2

P053-3

Thank you for the information.

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April 19, 2006

Dwight Sanders
State lands commission,
100 Howe Avenue
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Sacramento California 95825-8202

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Dear Mr. Sanders,

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There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely,

Vaala Ruffman

2a229 Heathercliff rd #7

Maliby Cay a0266

# V237

# Comment Form/Formulario Para Comentarios

Cabrillo Port LNG Deepwater Port—Revised Draft EIR
Puerto de Aguas Profundas de LNG en el Puerto de Cabrillo—Borrador Revisado del EIR

To receive a copy of the Final EIS/EIR, you must provide your name and address.
Para recibir una copia del EIS/EIR Final, por favor proporcionar su nombre y dirección
Name (Nombre): Steve Ruvo Lo
Organization/Agency (Organizatión/Agencia): California Resident
Street Address (Calle): 2095 Dawson Ave.
City (Ciudad): Signal Nill
State (Estado): Zip Code (Código Postal): 90755
email address (dirección de correo electrónico):

Please provide written comments on the reverse and drop this form into the comment box.

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Comments/Comentarios (Use additional sheets if necessary/Puede utilizar hojas adicionales si es necesario):

My name is Steve Ruvolo. = reside in Signal Hill, CA., a coastal	
community and I have an interest in LNG and other energy	
sources for our State. In my opinion, as long as our 1237	'-1
renewable energy resources are not sufficient to support our	
energy needs - LNG (natural gas) is still the cleanest	
Fossil Fuel available The Cabrillo Port Project is	
especially attractive because it is othere, out of view.	
From the mooring point to show the natural	
gos runs sately through pipelines into the	
So. Cal. Gas System. California carrendly gets its	
gas from the North and the East via pipelines	
The Casallo Port project would provide an additional	
necessary source. LMG is nothing new. It has	
1 2 6 11	
the US and the World. Steme Rumber Dawson toe.	
2095 Dawson toe.	

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2006/V237

V237-1

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